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Photo: Daniel Orey

In This Issue

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About the Journal

The Journal of Transformative Leadership and Policy Studies (*JTLPs*) is a peer – reviewed Journal sponsored by the Doctorate in Educational Leadership Program at California State University, Sacramento. *JTLPs* accepts articles that focus on current research promoting and documenting work in P-16 public education, including: schools, community colleges, and higher education.

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Journal of Transformative Leadership and Policy Studies

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Letter from the Editor

Articles

Reports

Submission Guidelines

Submission Themes

JTLPs encourages submissions that effectively seek to answer the following three themes:

1. Transformational Leadership: How do transformative leaders understand, implement, and evaluate strategic equitable leadership practices based on various theories, models, and approaches for achieving organizational transformation, especially in educational settings?

2. Critical Policy Analysis and Action: How do transformative leaders engage in critical analyses of policy at the local, state, national, and international levels?

3. Informed Decision Making: Documenting the ability to make effective decisions vital to successful performance of visionary transformational leaders is an important theme of this journal.

Specifically we seek examples of scholarship related to showcasing educational environments that promote: learning, equity, and achievement for all students; how educators manage the complexities of educational organizations; affect school change processes; and shape the educational policies that bear on the practice of education in the public setting.

This is an online academic journal. We expect that all submitting authors agree to serve as a reviewer of no more than two articles. Jurors name will appear in each edition.

Prospective authors should consult the detailed submission guidelines online at the Journal's web site: www.edweb.csus.edu/edd/jtpls.

Letter from the Editor

From Strength to Strength

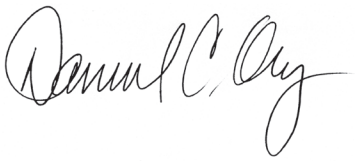
It is my distinct honor to introduce Volume 1, Number 1 of *The Journal for Transformational Leadership and Policy Studies* (*JTLPs*).

I want to begin by thanking Dean Vanessa Sheared of the College of Education; Dean Charles Gossett of the College of Social Sciences and Interdisciplinary Studies; and Carlos Nevarez, Director of the Doctorate in Educational Leadership Program, for their patience, support and encouragement during the editing and organizing of this inaugural issue. Another note of appreciation goes out to Steven O'Donnell for both his creative genius and technical support, which has inspired and encouraged me in many ways.

JTLPs is a new endeavor. It is sponsored by the Doctorate in Educational Leadership Program. Our new doctoral program is striving to build a new culture of inquiry and service. With each new cohort, we observe the transformation of both our students and fellow colleagues. This transformation is an ongoing process that began a number of years ago with the first meeting of a committee charged with developing a new program in educational leadership.

That transformation began through the process of getting the program proposal accepted, the selection of a director and faculty, and the enrollment of the first cohort. It continues with the development of this journal. It is my hope that *JLTPs* will grow to showcase faculty and student work and that of speakers and colleagues from around the world. Now that our first cohort has defended their dissertations, and the fourth cohort selected, *JTLPs* is coming to fruition as well. It seems right.

I look forward to future submissions as we continue our transformation as a valuable resource for our community and state.



Daniel Clark Orey, Editor

JTLPS

Practice What We Teach: Our Ethical Connection to P-12 Schools

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This article addresses the ethical interface of Educational Administration faculty, our degree and credential candidates, and the educational achievement of pre-school, kindergarten through high school (P-12) students. Culturally Proficient Coaching is presented as a set of integrated tools that can be used by Educational Administration faculty, P-12 school leaders, and classroom teachers in providing for the educational needs of students in our diverse communities.

Today's pre-school, kindergarten-12th grade (P-12) school leaders are expected to have experience and a knowledge base that effectively prepares candidates as instructional leaders in a variety of public schools and school districts (California Commission on Teacher Credentialing, Category I, Standard 1: Program Rationale and Design, p. 37). These expectations are inherent in the California Professional Standards for Educational Leaders (CPSELs), the Standards of Quality and Effectiveness for Preliminary Administrative Services Credential and its predecessor, the Interstate School Leaders Licensure Consortium (IISLC) .The assumptions inherent in this standards-based approach to instructional leadership are that leadership skills and dispositions are developed and strengthened over time and that school leaders know and understand standards-based instruction.

The purpose of standards-based leadership preparation programs and courses is to prepare emerging school leaders and administrators in ways that support instructional environments to ensure all demographic groups of students are achieving at levels higher than ever before (CCTC, 2004; NCLB, 2001). It is important to note that issues related to demography and diversity are considered a contextual issue for each of the CPSELs. This is a remarkable departure from past practice and now values our schools as cultural entities where children and youth from diverse backgrounds can expect their academic and related social needs to be met.

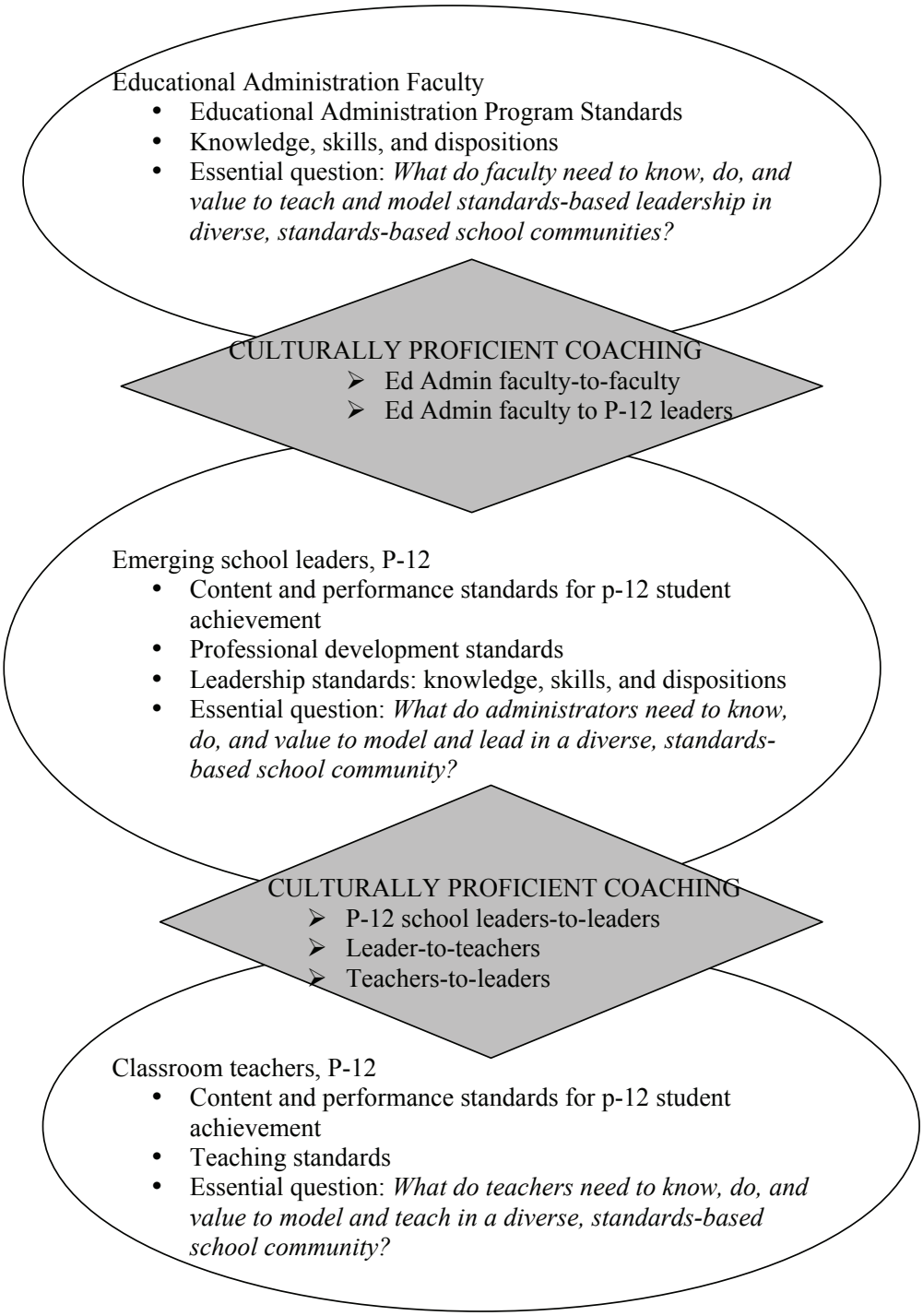
This paper offers a conceptual framework and instructional tools for Educational Administration faculty as we prepare candidates in our programs to be instructional leaders in diverse and complex P-12 educational environments. Cognitive Coaching (Costa & Garmston, 2002) and Cultural Proficiency (Lindsey, Martinez & Lindsey, 2007) are two distinct conceptual constructs that offer tools and dispositions for instructional leaders to use in their day-to-day engagements with teachers and staff members. We present coaching and cultural proficiency as integrated sets of tools for guiding individuals and groups to use cross-cultural issues as opportunities and assets rather than as challenges and deficits. This article is written for Educational Administration faculty who want to know how to ask questions that shift thinking in a way that connects our practice and our conversations to P-12 student achievement. Table 1 displays the relationship that Educational Administration faculty might have with P-12 environments when coaching is viewed as indispensable knowledge, skills, and dispositions for faculty, leaders, and teachers.

We encourage Educational Administration faculty to consider the use of coaching skills as an instructional tool and to present coaching as part of the knowledge base and skill development for administrative candidates. This approach is closely aligned with California's leadership standards as detailed in the CCTC program standards document in Standards 6: Opportunity to Learn Instructional Leadership (p. 44):

> "The role of the instructional leader is central to the functioning of an effective school, and thus the program provides multiple, systematic

Table 1

Number and Percentage Distribution of City Public Elementary and Secondary Students, by Race/Ethnicity : 2003–04



> opportunities for the candidate to connect theory to practice and develop the knowledge, skill and disposition to foster effective teaching in the service of student achievement."

The authors of this article believe that these opportunities to learn are enhanced by the faculty member's knowledge of and high value for coaching as an instructional tool to mediate and inform candidates' awareness of their critical roles for articulating a shared vision of teaching and learning in diverse school communities. We propose that Culturally Proficient Coaching is one way for candidates to learn, practice, and reflect on their role as instructional leader.

Culturally Proficient Coaching is based on a set of assumptions derived from our work with P-12 that schools that we believe to be germane to our role as Educational Administration faculty:

- As Educational Leadership faculty, we are in good position to serve as coaches to our degree and credential candidates.
- Our programs can be delivered in such a way as to teach our degree and credential candidates the skills of coaching to use in their everyday leadership roles.
- We know and understand that P-12 schools ARE the context for our work as Educational Administration faculty.
- We demonstrate a commitment to the moral imperative of a P-12 education system that meets the academic needs of all students.
- We hold collaborative learning to be an effective way to improve educational practice.
- Effective leaders can shift the focus of professional conversations from 'the blame game' to focusing on improving one's own practice.
- We can intentionally design and structure 'talk time' in P-12 schools.
- The Mental Model for Culturally Proficient Coaching represents a world view where all children have the capacity to learn at high levels.

Educational Administration Faculty as Coaches

Coaching is a word that conjures a variety of experiences and metaphors for each reader. Often, we recall our favorite sports coach, or our voice coach, or our spiritual coach as a model for effective coaching. The term, however, has taken on new meaning in today's educational environments. It seems that the noun, coach, is better understood when an adjective precedes it. Modifiers help clarify and describe the role(s) of coaches. Often, candidates in our programs come to us having been actively recruited and trained as literacy coaches, academic coaches, mathematics coaches, leadership coaches, and change coaches just to name a few. Why the increased interest in coaching as an instructional tool? How does coaching influence instructional practice and student achievement? These and other questions come to the forefront as educators confront the need to increase student achievement in schools across the nation.

Educational Administration faculty has numerous opportunities to serve as coaches for our degree and credential/certification candidates. Faculty, who skillfully use the tools of paraphrasing, pausing, and inquiry, mediate shifts in thinking with groups of candidates and in one-to-one conversations with candidates. The shift in thinking causes our candidates to consider changes in behaviors. The way we structure our questions either mediates, intimidates, or limits thinking for our candidates. For example, consider the impact and influence the following questions might have on our candidates' thinking during a class discussion about allocating resources to support an instructional program:

- *What is the reason for having a budget committee?*
  This question implies there is only one reason for having the committee and limits the candidates thinking to find that one response.
- *Why didn't you include teachers on your budget committee?*
  This question suggests a right answer and forces the candidate to defend her response.
- *Who else might the administrators invite to participate in the budget process?*
  This question opens up thinking so the candidate considers other possibilities for inclusion. A subsequent coaching question might help the candidate think more specifically about an issue if his responses have been broad and general. For example, the faculty member's question might be When you say 'everyone' should be involved in the budget process, who specifically might you include?

Of course, not all questions must be coaching questions. The faculty member must be clear about her intentions for inquiry and choose behaviors appropriate to the lesson and candidates' desired learner outcomes.

P-12 School Leaders as Coaches

Why Culturally Proficient Coaching, now? Today's school leaders are expected to develop skills based on their knowledge of standards-based instruction in their diverse, complex school communities. Coaching as a leadership skill provides the leader with opportunities *to learn how to develop cooperatively and guide the ongoing and long-term professional development of all staff consistent with the ongoing effort to improve the learning of all students* [CCTC, 6b(5)]. Culturally proficient leadership is one way to describe coaching in today's diverse school settings.

Cultural Proficiency provides the coach with a lens and set of tools for work in cross-cultural settings. To guide your reading and study, we use these definitions of coaching and Culturally Proficient Coaching in our work:

- *Coaching*
  Coaching is a way for one person to mediate and

influence the thinking and behaviors of another person. Influence can be either instructive or reflective.

- *Culturally Proficient Coaching*
  Culturally Proficient Coaching intends for the person being coached to be educationally responsive to diverse populations of students.
- *Mediation*
  Mediation is the skillful use of coaching tools that supports the people being coached to clarify, refine, modify, or shift thinking to be educationally responsive to diverse populations of students.

Perhaps, the need for Culturally Proficient Coaches is best identified in the current social, political, legal, and cultural context for schooling.

P-12 Schools is The Context for our Work as Educational Administration Faculty

A fundamental assumption that underlies the act of coaching is to assist and support desired change, both within our candidates as they approach their leadership roles and in their work with P-12 colleagues. As an example, it is our experience that when the concept of change is introduced in the context of diverse P-12 environments, very often people become ever more aware of their environment. We hear expressions such as, Have you had success with kids like these? I really believe it is an issue of poverty and we can't control that! Racism is so pernicious that interventions like coaching, as nice as they may be, just hit the surface. It is often of interest to people who utter such pronouncements that we agree. As Educational Administration faculty we are in a position to support our candidates to recognize and respect the social and political dynamics that swirl around us, but not to capitulate to such forces.

Berliner (2005) has performed a great service in helping us understand the negative effects of poverty and that our nation must address issues of systemic poverty and in doing so, issues of school reform will be even better addressed than current school reform efforts. Again, we agree. At the same time, we pay close attention to studies that report demonstrated progress being made in narrowing the gap (Haycock, Jerald & Huang, 2001; Perie, Moran & Lutkus, 2005).

Educational Administration faculty are in a unique position for guiding our candidates to acknowledge that they have little control or influence over the 17 hours that students are not on campus, but that they certainly have an opportunity during the 7 hours that students are on campus to greatly influence student learning environments. During the 7 hours that students are on campus, our candidates have great influence and control over decisions about curriculum, instruction, and learning. While P-12 schools cannot mitigate the very real external forces that impinge on our students, our candidates can learn and acknowledge that these forces exist. We can guide our candidates to use their professional associations to press for policy and legislative actions to address the effects of negative external forces. And, most directly, we can guide our candidates in learning that the improvement of our craft as educators is a life-long process. Coaching, specifically Culturally Proficient Coaching as described in this article, is intended to assist P-12 educators who desire to improve their craft; and, in so doing, positively impact student achievement irrespective of social circumstances.

Meeting the Moral Imperative of P-12 Schooling

Disparities in student achievement have been highlighted in unprecedented ways since 2001, when school districts throughout the United States were mandated to address achievement disparities based in demographic analyses (NCLB, 2001). Though several states had implemented similar programs prior to 2001, No Child Left Behind (NCLB) has drawn concerted national attention on the disparities of achievement among demographic groups. Throughout the country, many school districts receiving Federal funds for educating students of poverty (e.g., Title I) have used this mandate as an opportunity to examine student achievement data in ways that clearly identify the achievement gaps that exist between students who have been historically well-served by our schools and those who have been marginalized in many ways.

As Educational Administration faculty, we can use reports such as those from the National Association of Educational Progress and Education Trust to demonstrate that districts across the country are using assessment data to inform decisions about curriculum, instruction, and learning outcomes and are making headway in narrowing the gap (Haycock, Jerald & Huang, 2001; Perie, Moran & Lutkus, 2005). In using research in this way we become the arbiters of hope by guiding our students to learn best practices and not to dwell in the fatalistic stories about schools and districts that struggle in closing the achievement gaps. However, we can point out that in many of these stories of failure, educators often blame students for their family and social circumstances. These beliefs are based on negative racial, social, and cultural stereotypes about who learns and at what levels students can achieve.

Building a Case for Collaborative Learning

Irrespective of numerous state-mandated, standards-aligned programs developed to close the achievement gap, school leaders continue to look for ways to improve instructional strategies, implement curriculum standards, and meet assessment goals for all students. In response to the call for closing the achievement gap, Educational Administration faculty can guide our candidates to learn how P-12 educators are developing professional, collaborative learning communities (Louis, 1996; Schmoker, 1999; Reeves, 2000; DuFour, 2004). These collaborative communities are transforming schools from environments of blame

to environments of collaboration. These schools view collaboration and community as necessary elements to combat teacher isolation and student blame. Individual teachers may have developed instructional strategies and assessment tools that demonstrate how all students' needs are met, while other individual teachers struggle with those elements. We can guide our candidates to recognize the structures and conditions that are in place to support teachers. Collaborative efforts between teacher and administrators involve making sense of the assessment data, identifying student needs, and implementing strategies to respond to those needs. Through our modeling of examining best practices, our candidates learn that teaching and learning are enhanced by positive interactions between the teacher and their learners.

The literature is clear: *learning is a social construct*. We can guide our candidates to learn from research to construct environments in which administrators, teachers and students engage in conversations for the clear purpose of constructing knowledge. (Weick, 1995; Wenger, 1998; Wheatley, 2005; and Kana'iaupuni, 2005). For example, often when an Educational Administration instructor engages class members in a conversation about a topic of interest, an issue, an event, a lesson, or even a problem, comments and questions from diverse perspectives and experiences may influence their thoughts and consequent behaviors. Students walk away saying:

"Now, that topic makes more sense to me," or,

"Thanks for helping me sort through that issue," or

"Thanks for listening. I just needed for someone to listen to me."

Often, everyone in the discussion or conversation benefits in some way from the interaction among the speakers. Learning occurs as a result of conversations, formal or informal, and in structured or unstructured situations. The more intentional or structured the conversation is, the more formal are the learning outcomes. In P-12 school settings educators are starved for time to have structured, meaningful conversations. Through our direct instruction and coaching we can teach and guide our candidates in developing techniques and skills for meaningful conversations that focus on how to serve the educational needs of our diverse student populations.

Shifting Conversations from 'Blame' to 'Our Practice'

Today's emerging school leaders must be engaged in professional conversations, both formal and informal, focused on how the educational practices of teachers, administrators and counselors impact student achievement. For too long, conversations in educators' lounges and workrooms have been about what the students can't do, won't do, don't know, or don't care about. Educators say, We're just venting, as a way to exonerate themselves from talking about students in an informal, non-professional manner. Now is the time for Educational Administration faculty to guide our candidates as prospective and current P-12 educational leaders to confront colleagues' negative comments about students by asking questions that help surface the long-held assumptions about who can and will learn.

Often, candidates in educational administration courses report that they get up and leave when the conversations of their colleagues are negatively focused on students are underserved. In our educational administration courses, we must challenge these emerging leaders to stay and be willing to say something in support of students and their parents. The culturally proficient leader might ask or state:

- *What is it that we might do in our classrooms to address the needs of these students that we have not reached yet?*
- *What are some other ways that we might reach out to these students in an effort to better determine their needs?*
- *That is not how I experience these students. My experience has been that when treated in respectful ways and when presented with high expectations and rigorous assignments, the students perform quite well.*

Colleagues who ask questions or make statements that are practice-focused help shift the conversation from blaming students to educators' assuming professional and personal responsibility for providing practices that meet the needs of our diverse student bodies.

Intentionally Designing and Structuring 'Talk Time'

Recently, researchers have identified a positive relationship between professional learning communities and improved student achievement (Raisch, 2005; Greene, 2004; Louis, 1996; Garmston & Wellman, 2000). Site administrators who are aware of the power and potential of collaborative work time and planned conversations create conditions for teachers to have designated time during the workday to talk, plan, and learn together (Murphy and Lick, 2001; Mahon, 2003; and Wheelan and Kesserling, 2005). Several formal learning community models support teachers and administrators in many of today's comprehensive, systematic school reform projects (e.g., Comprehensive School Reform, Title I, and Reading First). Current formal designs for teacher collaboration include professional learning communities, learning organizations, faculty study groups, and adaptive schools, just to name a few (DuFour, 2005; Garmston & Wellman, 1999). Table 2 highlights the shift that professional learning communities make when focused on learning and achievement (DuFour, 1998, & Garmston & Wellman, 2000).

When attention shifts from a focus on teaching to a focus on student learning and achievement the noticeable shift is accompanied by observable behaviors found to be common in professional learning communities (Louis, 1996; Wenger, 1998; DuFour, 2004; Bloom, 2005).

Table 3 illustrates five behaviors demonstrated in professional learning communities.

In our Educational Administration programs we have the opportunity to help P-12 educators realize that when

Table 2

Three Primary Strands of Professional Learning Communities that Serve to Shift Instructional Practice

From	To
Focusing on teaching as presentation	Focusing on learning and student achievement
Working independently and in isolation	Working collaboratively to build shared knowledge and deeper understanding for addressing success for each and every student
Measuring teacher success by good intentions and hard work	Assessing effectiveness based on student achievement results

Table 3

Behaviors Educators Share in Professional Communities

Share norms and values
Collectively focus on student learning
Collaborate about instructional choices
Deprivatize practice
Participate in reflective dialogue

they open their classroom and office doors to colleagues and coaches they are taking critical steps toward deprivatizing their practice. Teachers working together to improve student achievement often share assessment data, co-create lesson designs, and pool resources and materials of instruction. The question for our P-12 colleagues is no longer Why collaborate?, rather, How do we collaborate?

Educational Administration faculty can guide candidates to learn that structuring time for collaborative learning opportunities is but a first step to improve student achievement. A subsequent step is for our candidates to develop professional skills in marshalling organizational resources (i.e., time, people, money, and materials) to support a positive school climate and organizational cultural. These initial steps are described in the leadership literature as transactional in nature and are often grounded in the assumption that teachers respond to management-by-rewards and sanctions (Hoy & Miskel, 2005). Subsequent leadership steps that are transformational in nature requires the leader to have knowledge and skills as coaches and mentors to help teachers and other leaders develop t higher levels of performance by taking responsibility their won development (Hoy & Miskel, 2005). This transformation in thinking leads to actions that allow educators to focus conversations and communications on student progress as the important next step after allocating sufficient time for professional learning. The language of collaboration requires school leaders' awareness of the need for P-12 educators to professionally talk about student achievement, knowledge of skillful ways of talking, and development of a shared set of norms about how to effectively communicate as group members.

Intentional coaching is a way to plan for and develop collaborative learning communities. Planning conversations, using an intentionally designed coaching format, must be focused on student achievement and improvement of instructional practice. In collaborative learning communities teachers focus on intentional conversations and planning sessions about student learning goals, progress of students using selected interventions, parent engagement in student progress, and new instructional strategies based on analysis of student achievement data.

Culturally Proficient Coaching is a Way to View the World

Culturally Proficient Coaching is a world view, or mental model, for mediating thinking and changes in behaviors for self and others. How one views the world, in part or whole, is a matter of how one is socialized to view the world. Cultural Proficiency embodies a worldview that holds cultural differences as human made and recognizes that cultural differences are often used to justify the enforcement of superior-inferior relationships. Systems of oppression have existed from time immemorial and rather than perpetuate disparities, the culturally proficient educator commits herself to the elimination of human-made barriers to student learning and achievement. By definition, Culturally Proficient Coaching is an intentional, inside-out approach that mediates a person's thinking toward values, beliefs, and behaviors that enable effective cross-cultural interactions to insure an equitable environment for learners, their parents, and all members of the community.

Culturally Proficient Coaches serve as mediators for another's self-directed learning in ways that help reveal, modify, refine, and enrich meaning, decisions, and behaviors that are intentional and supportive of culturally diverse environments. The coach is aware that mediation as described by Costa and Garmston (2002) produces new connections and thoughts in the brain. Often, issues of race, culture, gender identity, and class create a climate of distrust, anger, and guilt among and with teachers and the communities they serve. Brain researchers have demonstrated how thinking often shuts down when a person lives and works in a climate of distrust or hostility. The Culturally Proficient Coach is aware of where the speaker is and helps mediate that person to where the speaker wants to be and behave. Mediating another's shift in thinking from a sense of helplessness and rigidity to an attitude of confidence and flexibility requires the skills of Cognitive Coaching within the frame of diversity and equity. Cultural Proficiency provides that frame of reference for the coach.

Table 4 presents the Mental Model of Culturally Proficient Coaching. The model combines two of the tools of Cultural Proficiency and the Cognitive Coaching framework. The Cultural Proficiency Continuum and the Essential Elements of Cultural Competence are aligned with the Five States of Mind from Cognitive Coaching to provide a framework and standards for developing explicit behaviors and practices that direct our work as educators.

The Mental Model of Culturally Proficient Coaching (MMCPC) is comprised of two axes of information. The horizontal axis presents the six points of the Cultural Proficiency Continuum arranged into two sections:

- Column #1 represents world views that considers diversity as a problem to be solved. Cultural Destructiveness, Cultural Incapacity, and Cultural Blindness represent behaviors that consider students' culture, their parents/guardians, the neighborhoods in which they live, and their home language as being problematic.
- Columns #3 – #5 represent a worldview that considers culture and diversity of value and serve as the basis for meeting the needs of our children and youth. You will note that as you read from columns 3 to 5 the behaviors grow from awareness, to commitment, to advocacy. Column #4 represents the Five Essential Elements of Cultural Competence, which serve as the standards for effective cross-cultural educational practice.
- Column #2 represents the Five States of Mind of Cognitive Coaching. These states of mind serve as educators'

Table 4

The Mental Model of Culturally Proficient Coaching

FROM: **TOLERANCE FOR DIVERSITY** **The focus is on *them***		***TO:*** **TRANSFORMATION FOR EQUITY** **The focus is on *our practice* as a coach**

Cultural Destructiveness, Incapacity & Blindness – *Areas of Unconscious & Conscious Incompetence characterized by:*	**States of Mind present Opportunities for Coaching**	***Cultural Precompetence –*** *Area of Conscious Competence characterized by transitions:*	***Cultural Competence's Essential Elements* & *The States of Mind –*** *Area of Conscious Competence characterized by:*	***Cultural Proficiency –*** *Area of Unconscious Competence characterized by future focus:*
External locus of control	**Efficacy**	Emerging awareness of own skill and knowledge deficiencies	• Internal locus of control • Assessment of cultural knowledge	Commits to on-going personal and organizational learning
Narrow, egocentric views	**Flexibility**	Openness to other ways of doing things	• Broader and alternative view of control • Value for diversity	Invites members of larger lay and professional communities to participate
Vagueness and imprecision	**Craftsmanship**	Willingness to focus on needs of subgroups of students	• Specificity and elegance • Manage the dynamics of difference	Establishes a vision that is complete with assessable goals
Lack of awareness	**Consciousness**	Growing awareness of differential needs of community	• Awareness of self and others • Adapting to diversity	Continuously studies the community for demographic and economic shifts
Isolation and separateness	**Interdependence**	Willingness to work with others to meet own and school needs	• Connection to and concern for the community • Institutionalize cultural knowledge	Commits to professional development embedded in the cultural realities of the community

internal resources for mediating thinking and initiating new behaviors.

The vertical axis represents the confluence of the Five States of Mind from Cognitive Coaching and the Five Essential Elements of Cultural Competence. It is these behaviors, skills and dispositions that are designed to meet the needs of our diverse P-12 school constituencies.

Conclusion

Several usable and useful approaches to educational coaching lend themselves to application in diverse school settings and in Educational Administration Programs (Bloom, Castagna, Moir, and Warren, 2005; Greene, 2004). We offer Culturally Proficient Coaching as a matter of personal preferences and experiences in P-12 schools and their communities. The Tools for Cultural Proficiency described by Lindsey, Nuri Robins, and Terrell (2003) were developed to provide school leaders an inside-out approach to the opportunities and challenges facing schools in today's complex and diverse environments. The tools for Cultural Proficiency can be applied to both organizational policies and practices and individual values and behavior. The tools are used to shift thinking from a tolerance for diversity to a culture of interaction based on respecting and expecting diversity.

In a culturally proficient environment each teacher, administrator, parent, and student has the opportunity to grow as an individual as well as a member of a larger community. The more one knows about one's self, the better prepared the individual is to interact with others in that larger community. Becoming a Culturally Proficient Coach is a personal and professional journey not a destination. As you continue your teaching and learning journey, we ask you to visually hold these questions:

- Who am I in relation to the university in which I teach/ research and the community I serve?
- Who am I in relation to the candidates I teach?
- Who am I in relation to the persons I coach?
- Who am I?

These questions invite, and are designed, to assist ourselves as Educational Administration faculty to challenge ourselves and our candidates to examine our innermost thoughts, beliefs, and assumptions about the communities, the languages spoken, the socio-economics, and the learning styles of the students and parents we serve.

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JTLPS

Urban Principals' Experiences and Perceptions of Teacher Effectiveness: An Analysis of Student Achievement, Hiring and Retention, and School Culture

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Abstract

In an effort to promote school improvement, principals have primarily focused on developing quality teachers as a method of enhancing the academic achievement of students. This article seeks to shed light on the experiences and perceptions of urban principals regarding teacher effectiveness. Specifically, this article focuses on principals' outlooks on teachers' in three areas: student achievement, hiring and retention, and school culture. Empirical data from this study was derived from a mixed-method cross sectional survey administered to urban school principals in Arizona and California. It was evident in this study that principals perceive teachers as either well qualified or very well qualified to educate urban students. These findings are incongruent with the greater literature on this topic which illustrates the quality of urban school teachers is in question in comparison to non-urban teachers. The implications of principals' overwhelmingly positive outlook are discussed coupled with recommendations for future research.

As the United States progresses toward the end of the first decade of the twenty-first century, it is becoming increasingly evident that both the world and the nation that we live in are rapidly changing. Significant demographic changes coupled with globalization, the privatization of education, and issues of accountability have fueled the fire of debate over the need for greater emphasis on student academic achievement. The plight of urban schooling in addressing the aforementioned changes has become even more central to these discussions as many scholars note the imperative national need for successfully preparing urban students to meet the educational demands of this new age (Anyon, 2005; Kozol, 1991; Ladson-Billings, 1994; Noguera, 2003). This becomes more paramount considering fourteen million children reside in urban K-12 public schools (Haberman, 2005). These schools are faced with societal, political, and economic obstacles in conjunction with barriers brought about by poverty, all of which exacerbate student academic success (Henig, Hula, Orr, Pedescleaux, 1999; Nevarez & Wood, 2007).

In the midst of these challenges urban principals and teachers are increasingly being held accountable for assuring that schools are making progress toward increasing the academic success of urban students. Principals are now expected to be central figures in building schools that develop and promote success for all students. This expectation has changed from the role of principals as enforcers who maintain the 'status quo' (Normore, 2004). In an effort to promote school improvement, principals have primarily focused on developing quality teachers as a method of improving the academic achievement of students. Bearing this in mind, this article seeks to shed light on the experiences and perceptions of urban principals regarding teacher effectiveness. Specifically, this article focuses on principals' outlook on teachers' in three areas: student achievement, hiring and retention, and school culture.

It is essential for urban principals to understand the scope of the challenges faced by teachers in their efforts to support them through the allocation of resources and services which leads to improved teaching and instruction. This is paramount considering that 29 percent of teachers leave the profession within three years and 50 percent of urban teachers leave the teaching profession within five

Table 1

Number and Percentage Distribution of City Public Elementary and Secondary Students, by Race/Ethnicity : 2003–04

White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaskan Native
5,049,347	3,998,670	4,243,922	945,856	120,939
(35.2%)	(27.8%)	(29.6%)	(6.6%)	(0.8%)

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/ Secondary School Universe Survey," 2003–04.

years. The primary reason teachers report for leaving is a of lack of support from school administrators in conjunction with teachers not feeling educationally and professionally prepared for the continuous and increasing demands of teaching in urban schools (Education Commission of the States, 2003; McKinney, Haberman, Stafford-Johnson, and Robinson, 2008).

Demographic Setting

Urban schools continue to be racially and ethnically diverse (Dittman, 2004; Orfield and Lee, 2004). Data on urban schools reveals an over-representation of poor and students of color[1] as compared to the national demographics of the United States. In analyzing population data and projections, it is evident that between the years 2000 and 2050, the percentage of Caucasians in the United States will decrease from 69.4 percent to 50.1 percent, a total decline of 19.3 percent. As this decrease is taking place, the Hispanic population[2] will experience a marked increase from 12.6 percent to 24.4 percent, a total increase of 11.8 percent. A rise in population percentage among other groups of color will also take place, though to a lesser degree: African Americans from 12.7 percent to 14.6 percent; Asian Americans from 3.8 percent to 8.0 percent; and Native Americans from 2.4 percent to 4.4 percent (U.S. Census Bureau, 1996; U.S. Census Bureau, 2003-04). Table 1[3] illustrates the percentage of racial and ethnic students attending public K-12 schools, 64.8 percent of city/urban student enrollment is comprised of students of color. Of these students, the vast majority are Black (27.8 percent) and Hispanic (29.6 percent).

The trajectory of demographic figures for poverty and race/ethnicity becomes more apparent when viewed from national racial/ethnic data as well as poverty data in relation to urban school settings. According to the National Poverty Center (2004), 12.7 percent of people living in the United States lived in poverty and although children represented only 25 percent of the national population, they account for 35 percent of the poor. Sixty eight percent of these economically poor children are concentrated in urban schools (US Department of Commerce, 2003-04). The poverty levels are more apparent when data is disaggregated based upon racial/ethnic affiliation. Table 2 shows that Hispanics and Blacks comprise the majority of students in poverty.

Poverty is a barrier to academic achievement and thus is a monumental issue facing city/urban public schools. Large concentrations of students in urban schools are from economically disadvantaged families (Lippman, 1996; Porter & Soper, 2003). In fact, 40 percent of students in urban schools are in poverty (Lippman, Burns, McArthur, Burton & Smith, 1996). Sanders (1999) notes that students living at or near the poverty line are often viewed stereotypically as being less academically skilled than other students. As a result, they are often placed into lower- level and lower-performing classes. Berliner (2006), in a critique of the impact poverty has on urban schooling, states that students in low-income communities are not as successful in school as students from affluent communities. He attributes this inequitable performance to non school-related factors including inadequate day care, environmental issues, low employment rates, and minimal access to technology.

In addition to the impact of poverty on individual students, the income of families dwelling within a school district can have a direct affect on the financial stability of the school. According to Anyon (2005) the fiscal viability of schools are related to the tax base of residents within a schools district. Thus, the lower the tax base, the less funding

1 Students of color-"is used to reference African Americans, Hispanic/Latinos, Native Americans, and Asian Americans" (Nevarez & Wood, 2007, p. 277).

2 "The terms Hispanic and Latino are used interchangeably to refer to persons of Mexican, Puerto Rican, Cuban, Central and South American, Dominican, Spanish, and other Latin American descent" (Nevarez & Wood, p. 277).

3 Construct for classifying people with similar biological, social, and cultural heritage.

Table 2

Children under 18 Living in Poverty, by Race: 2004

Caucasian	Black	Hispanic	Asian	Total
4,507	4,049	4,102	334	13,027
(10.5%)	(33.2%)	(28.9%)	(9.8%)	(17.8%)

Source: U.S. Bureau of the Census (2004). Income, Poverty, and Health Insurance Coverage in the United States: Report P60. Washington, DC: Author. Retrieved July 11, 2008, from: http://www.npc.umich.edu/poverty

a school may receive. Darling-Hammond (2007) states that:

The continuing segregation of neighborhoods and communities intersects with the inequities created by property tax revenues, funding formulas, and school administration practices that create substantial differences in the educational resources… funding systems and other policies create a situation in which urban districts receive fewer resources than their suburban neighbors (p. 320-321)

These funding inequities result not only in facilities which are outdated (Cortese, 2007) but more importantly, influence the quality[4] of teachers in urban schools. School funding impacts teacher quality because urban school districts often do not possess the fiscal vitality to guarantee subsequent year job stability. Thus, teachers may be forced to renew their contracts each year. Suburban districts may be more likely to ensure stable employment for teachers as well as hire them early. As a result, many suburban districts have already completed their hiring cycles while urban districts are getting prepared to renew contracts. Teachers seeking stability are then hired first by suburban districts. Due to this process, the tendency for urban districts to hire inexperienced and uncertified teachers increases substantially (Stotko, Ingram, & Beaty-O'Ferrall, 2007). Humphrey, Koppich, and Hough (2005) note that an unequal representation of certified teachers is apparent in low-performing schools. They state that only 12 percent of certified teachers are in low-performing schools and only 16 percent in schools that have three-quarters or more students of color. In addition to a lack of certified teachers, urban schools are also significantly more likely than suburban schools to have less experienced and first-year teachers (Marnie, 2002). This concentration of less experienced and uncertified teachers in urban schools is disconcerting considering that teacher quality is directly related to student academic success (Brown, 2002; Carter, 2001).

4 This study defines teacher quality as "teachers' preparation, their qualification and the nature of the environments in which they work" (Young, Grant, Montbriand & Therriault, 2001).

Educational Hurdles

Academic achievement in urban schools is an issue of continuous concern, especially related to low income and students of color. According to the Council of Great City Schools (2005) academic achievement in math and reading among these groups of students was far below national standards. They report that urban districts scored below state averages in National Assessment of Educational Progress (NAEP) test scores (85.7 percent for math and 83.9 percent for reading). An analysis of NAEP test scores from large central cities makes apparent that nearly half of urban school students are below basic in 8th grade math as well as 4th and 8th grade English (2005a, 2005b).

Low test scores in math and English correlate with low graduation rates among high school students (graduation rates being one measure of academic achievement). Swanson (2008), in an analysis of graduation rates in the largest cities in the United States, found that "only about one-half (52 percent) of students in … school systems of the 50 largest cities complete high school with a diploma" (p. 8). Swanson also found that graduation rates for many underrepresented students of color in these urban districts were dismal (Native Americans 49.3 percent, Blacks 53.4 percent, and Hispanics 57.8 percent). While these numbers are low, it is important to recognize that these percentages are averages among a select group of schools. As an illustration, the graduation rates for school districts serving the nation's 50 largest cities, in 2003-2004 the Detroit City School District had a graduation rate of 24.9 percent versus 77.1 percent for the Mesa, Arizona Unified School District (Swanson, 2008). An abundance of implications directly result from low academic attainment and achievement. Among those ramifications is the under-representation/preparation of urban students when transitioning from high school to college.

Low representation and preparation for college often results in a limited number of these students entering the teacher pipeline. Gay, Dingus, and Jackson (2003) report that there is a large representation of students of color in public schools, at the same time there is an under-representation of teachers of color. Under-representation is a significant factor in aiding the academic success of students given the

Table 3

National Assessment of Educational Progress-Urban School District Assessment Large Central Cities

	Below Basic	Basic	Proficient	Advanced
Math - 4th Grade	32%	43%	21%	3%
Math - 8th Grade	47%	34%	15%	4%
English - 4th Grade	51%	29%	15%	4%
English - 8th Grade	40%	40%	18%	2%

Source: National Assessment of Educational Progress. (2005). The Nation's Report Card: Trial Urban District Assessment-Mathematics. Washington, DC: U.S. Department of Education. National Assessment of Educational Progress. (2005). The Nation's Report Card: Trial Urban District Assessment-Reading. Washington, DC: U.S. Department of Education.

Table 4

Principals in Public and Private Elementary and Secondary Schools, by Selected Race: 1993–94 and 2003–04

	Caucasian	Black	Hispanic	Asian	American Indian	Total
1993-94	67,808	8,020	3,270	620	630	79,620
	(84.2%)	(10.0%)	(4.1%)	(0.7%)	(0.7%)	
2003-2004	72,200	9,250	7,680	460	600	87,620
	(82.4%)	(10.5%)	(5.3%)	(0.5%)	(0.6%)	

Source: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Principal Questionnaire" and "Private School Principal Questionnaire," 1993–94, 1999–2000, and 2003–04. (This table was prepared June 2006.)

contributions of teachers of color. Nevarez and Wood (2009) provide five primary themes that epitomize the contributions teachers of color make: a) preparing students for a diverse global marketplace; b) promoting civic engagement and social justice; c) creating quality role models; d) providing cultural brokers/translators/transformers; and e) encouraging critical pedagogy that empowers students to become reflective thinkers around issues of equity and social justice.

According to the U.S. Department of Education (2003-04b), 71 percent of urban public elementary and secondary school teachers are White, while the percentage representation of teachers of color is as follows: Black 15 percent, Hispanic 10 percent, and Other[5] 4 percent. Similarly the under-representation of principals of color is to be expected as principals, almost invariably, progress through this teaching pool. In fact, the racial makeup of urban school principals in the United States reveals dismal racial diversity (Gardiner and Enomoto, 2006). Table 4 illustrates racial and ethnic demographic trends for principals. Blacks and Hispanics have made minimal gains between 1993-94 and 2003-04 (Blacks rose from 10 percent to 10.5 percent and Hispanics from 4.1percent to 5.3 percent). Additionally, this representation pales in comparison to Caucasian public school principals who accounted for 82.4 percent of principals in 2003-2004.

The changing demographic composition of urban students coupled with the lack of representation of teachers and principals of color requires urban institutions to modify, delete, or create new practices and policies with a focus on increasing the diversity of personnel. For instance, Nevarez and Wood (2007) cite the National Collaborative on Diversity in the Teaching Force (2004) in providing a rationale for the benefits of having a diverse leadership pool, four advantages to increasing the number of principals and superintendents of color: (a) their presences produce more mentors and role models for students, (b) they create more occasions for students to increase knowledge of their own racial/ethnic identity, (c) they are able to establish better relationships with students of color because of shared racial, ethnic, and cultural identities, and (d) they guide these students through

5 Asians/Pacific Islanders, American Indians/Alaska Natives, and those of more than one race.

Table 5

Teacher Ability to Raise Student Achievement

All of My Teachers	Most of My Teachers	Half of My Teachers	Some of My Teachers
4,507	4,049	4,102	334
(10.5%)	(33.2%)	(28.9%)	(9.8%)

a system that was developed to be counterproductive to their academic success (p. 270).

Consequently, teachers and principals who are socialized within communities of color are more prone to take on an efficacious role in improving the academic performance of students of color (Ladson-Billings, 1994). This is based not solely on racial/ethnic affiliation, but on lived experiences which allow individuals to get a first-hand look at the plight of urban students. These characteristics can be acquired by anyone independent of race/ethnicity. However, because of the fragmented societal segregation of various racial/ethnic groups, individuals are not afforded the opportunity to learn about individuals that are different than themselves.

Methodology

Data from this study was derived from a mixed-method cross sectional survey administered to urban school principals in Arizona and California. The survey was piloted with a small group of faculty members in order to refine the instrument and eliminate leading or biased questions. The test group was comprised of fifteen faculty members, all former urban principals. E-mails of participants were collected from the Arizona and California Department of Education web sites. The survey was disseminated via an internet survey distribution system, utilizing a non-probability quota sampling technique. The survey was open for three weeks in each state and periodic reminders were sent to participants who had either started and/or not completed the survey.

There were 68 total respondents in all, 49 from California (CA) and 19 from Arizona (AZ). The gender breakdown of participants[6] for CA revealed that 31 (63.2 percent) participants were female and 17 (34.6 percent) were male; AZ respondents included 12 female participants (63.1 percent) and 7 male participants (36.8 percent). The racial and ethnic makeup of principals was as follows: CA- 10.2 percent African American; 4 percent Asian American; 57.1 percent Caucasian; 24.4 percent Latino; 2 percent decline to state; and AZ- 10.5 percent African American; 68.4 percent Caucasian; 21 percent Latino. The respondents represented all levels of K-12 education (elementary (58.8 percent), elementary - middle school (5.8 percent), elementary - high school (1.4 percent) middle (14.7 percent), middle-high school (2.9 percent), and high school (16.1 percent).

The authors examined urban school principals' experiences and perceptions of teacher effectiveness in three areas: student achievement; hiring and retention, and school culture. Survey questions (Likert-scale and open-ended) were grouped according to these three themes. Teachers' impact on student achievement was based upon five areas of inquiry: 1) principals' perceptions of the extent to which teachers take responsibility for student achievement; 2) principals' experiences regarding whether teachers discuss assumptions about race and student achievement; 3) principals' perceptions of teachers' beliefs in high expectations for all students; 4) principals' experiences with teachers' demonstrated abilities to raise student achievement; and 5) principals' views on whether teachers have the ability to utilize data from student assessments. Teacher Hiring and Retention was informed by four lines of questioning: 1) principals' autonomy in hiring the candidates they desired; 2) principals' experiences with their districts in actively recruiting capable teachers; 3) principals' views of their schools' demonstrated commitment to diversity in the teacher recruitment and hiring process; and 4) principals' perceptions of teacher retention within the next two years. Teachers' Familiarity with School Culture was derived from two primary questions which focused on: 1) principals' perceptions of the proportion of teachers who have familiarity with school community; and 2) principals' views on how teachers fit into the school culture.

Findings

Student Achievement

Kunjufu (1989) has written extensively about high expectations in school. He notes that high expectations are essential to the academic success of students of color, particularly African American males. Furthermore, when high expectations of academic excellence exist for all students within a school learning environment, students make greater efforts in meeting those high standards set by the school community. Keeping in mind the importance of high expectations, principals' responses regarding whether teachers' hold high expectations for all students were as follows: 17.6 percent all of my teachers; 60.2 percent most of my teachers, 10.2 percent about half of my teachers; and 11.7

6 One participant from California did not respond to this question.

Table 6

Actively Recruiting Capable Teachers

Excellent	Above Average	Below Average	Poor
35.2%	42.6%	19.1%	2.9%

percent some of my teachers.

Bearing in mind the racial implications of expectations for students, principals were also asked whether teachers discuss assumptions about race and student achievement. The participants responded as follows: 4.4 percent strongly agreed, 60.2 percent agreed, 29.4 percent disagreed, and 5.8 percent strongly disagreed. Discussing assumptions about race and its relationship to student achievement is of critical importance; especially considering lingering notions of biological determinism which influences student achievement (see Herrnstein & Murray, 1994).

As a corollary to this, school principals were asked how much they agreed or disagreed that teachers take responsibility for student achievement. Of the total respondents 35.2 percent strongly agreed that teachers take responsibility, 57.3 percent agreed, and 7.3 percent disagreed. Additionally, principals were asked about their experiences with teachers in terms of improving student success. Respondents were asked to indicate the proportion of teachers that demonstrate the ability to raise student achievement. A large portion of principals (69.1 percent) stated that all of their teachers or most of their teachers had demonstrated this ability (see Table 5). In contrast, a notable percentage of principals (30.8 percent) stated that only half or some of their teachers have the ability to raise student achievement.

This study also sought to determine whether teachers possess the skills necessary to make use of standardized tests and other forms of assessment. Thus, principals were asked whether teachers have the ability to utilize data from student assessments. Of the total principal responses, 23.5 percent stated all of my teachers, 50 percent most of my teachers, 22 percent about half of my teachers, and 4.4 percent some of my teachers.

Teacher Hiring/Retention

The survey sought to determine the extent to which principals have autonomy in teacher hiring, through an open-ended response format. Principals were asked to describe the extent to which you are able to hire your teachers of your choosing. Responses from principals were coded based upon emergent themes. Data coding revealed two major emergent themes; the first was that principals had full hiring autonomy:

"I have the complete power to hire who I think is best for my school"
–Elementary School Principal, CA

"I can hire and fire teachers with full autonomy"
–Middle/High School Principal, CA

"I hire all of my own teachers"
–Elementary School Principal, AZ

The second major theme was that principals had indirect influence on hiring through site-based hiring committees. These committees are comprised of teachers and sometimes students as well:

"I put together a team of teachers to interview and make the final decision"
–Elementary School Principal, AZ

"We hire as a committee, but I can recruit/hire teachers I want to have. It's a site decision that includes me. I would not have a whole committee interview someone I would not hire"
–Elementary School Principal, AZ

"Joint effort with site leadership team comprised of all stakeholders, including students"
–High School Principal, CA

While most principals had substantial direct or indirect influence in hiring decisions, a few principals did not. Primarily, their responses indicated hiring challenges due to strong faculty unions or full-district level screening, interviewing, hiring and placement of teachers.

Beyond school level hiring, principals were also asked to describe their experiences with their districts' recruitment of teachers, in terms of teacher quality. Principals were asked whether districts are actively recruiting capable teachers. Table six illustrates that 77.8 percent of principals reported their ability to recruit capable teachers was either excellent or above average.

Principals were also asked whether there was a commitment to diversity in the teacher recruitment and hiring process. Of the total principals, 36.7 percent stated excellent, 48.5 percent above average, 10.2 percent below average, and

Table 7

Familiarity with School Community

All of My Teachers	Most of My Teachers	Half of My Teachers	Some of My Teachers
23.5%	50%	20.5%	5.8%

4.4 percent poor. As indicated by this finding 84.8 percent of principals believe that they are doing excellent or above average in their commitment to diversity.

In addition to hiring, the study sought to understand principals' perceptions of teacher retention. Using a four point Likert-scale question format (with answer types including: most of my teachers; about half of my teachers; some of my teachers, and none of my teachers), participants were asked what proportion of their current teachers will be likely to leave teaching in the next year or two. Of the respondents 1.4 percent answered most of my teachers, 1.4 percent about half of my teachers, 69.1 percent some of my teachers, and 27.9 percent none of my teachers.

Teachers' Familiarity with School Culture

This survey sought to provide insight into principals' perceptions of teachers' familiarity with the school culture and school community. Reinhartz and Beach (2004) provide a simple definition of school culture, "how a school or an organization does things" (p. 27). School culture is comprised of the daily operations, values, and practice employed in a school. School community is a public school that acts as the center point of its community by engaging community resources to offer a range of services and resources that support the success of students and their families (Federation for Community Schools, 2007). Principals were asked to indicate the proportion of their teachers who had familiarity with the school community. The vast majority of responses (73.5 percent) stated that all of their teachers or most of their teachers had familiarity with the school community.

Principals were also asked about the proportion of their teachers who had familiarity with the school culture. Of the respondents, 20.5 percent stated all of my teachers, 64.7 percent most of my teachers, 11.7 percent about half of my teachers, and 2.9 percent some of my teachers. As a result, a large portion of the respondents felt that their teachers had familiarity with the school culture and community. Nevarez and Wood (2007) state that an awareness of the school culture and surrounding community can be utilized by teachers in their efforts to connect students' own life experiences with the curriculum and class assignments which will validate the students' world view. The teacher, in this case, sees the cultural norms of the community as assets in the educational process.

Discussion

This study broadens the research literature on urban principals' experiences and perceptions of teacher effectiveness. While much more work is warranted in gaining a comprehensive overview of how urban principals experience teachers' effectiveness, this study clearly reveals principals' overall positive outlook on the quality of teachers in three general areas: student achievement, hiring and retention, and school culture. The study's findings offer several consistent results. The most significant results focus on principals' perceptions of teachers' ability to increase student achievement, principals' autonomy in hiring teachers of their choosing, and teachers' familiarity with the school culture and community. These findings are contextualized within the greater literature.

The vast majority of principals either believe that all of their teachers or most of their teachers: a) take responsibility for student achievement; b) demonstrate the ability to raise student achievement; and c) have the ability to utilize data from student assessments. Additionally, views on teachers' means of holding high expectations for students, teachers' ability to raise student achievement, and teachers' efforts to discuss assumptions about race and student achievement were viewed favorably by principals. However, one-third of principals responded that they either disagree or strongly disagree that teachers are not engaging in conversations about student achievement in relation to race/ethnicity. Lindahl (2006) states that it is impossible to discuss closing the achievement gap without acknowledging the role of race and culture, considering students bring their cultural values to the school environment. Teachers' cultural understanding of themselves, the students they teach, the families that raise them and the communities where they reside can be used through curriculum and instruction pedagogy to increase student achievement (Howard, 2006).

Principals also reported having substantial autonomy through direct or indirect influence in hiring teachers of their choosing. According to Papa, Lankford & Wyckoff (2003) it is important that urban principals have autonomy in the hiring process. They stated, that "it is problematic holding principals accountable when they do not have substantial control and involvement in the process by which teachers are hired" (p. 7). They also note that urban principals have less autonomy in hiring that do their suburban and rural counterparts. In

contrast to this viewpoint, which is shared by the greater literature review, this study revealed that the vast majority of urban principals have autonomy in hiring teachers of their choosing.

Study results revealed principals' satisfaction with their school district's ability to actively recruit capable teachers and their commitment to diversity in teacher recruitment and hiring. Literature on urban schools suggests that recruiting capable teachers is very difficult (Hill, Campbell, Harvey & Herdman, 2000; National Commission on Teaching and America's Future, 1996, 2002). The success, or lack thereof, of urban school students is often attributed to low teacher qualifications and quality (Stotko, Ingram, Beaty-O'Ferral, 2007). This finding also tends to differ from the scholarly literature which states that, in general, districts are not doing a good job of diversifying their teacher ranks (Eubanks & Weaver, 1999; Gay, Dingus & Jackson, 2003).

In this study, school principals revealed concerns with teacher departure. According to National Commission for Teaching and America's Future (2002) nearly half (46.2 percent) of teachers will leave the profession within five years. This rate is higher for urban and high-poverty schools. For example, the one year teacher turnover rates in suburban schools are 14.9 percent; while urban schools have a 15.9 percent annual turnover rate. However, high-poverty schools have a 20 percent annual turnover rate. Certo & Fox (2002) state that the primary reasons teachers leave schools are due to poor salaries, inadequate support from campus administration, and minimal time for planning.

In this study, despite concerns about teacher turnover, principals had a favorable view of teachers' familiarity with school and community culture. In contrast, research on urban schools suggests that there is often a cultural disconnect between the teaching force and the students, families and communities that they serve (Eubanks & Weaver, 1999; Ladson-Billings, 1994; Villegas & Clewell, 1998; Zeichner, 1996a, 1996b). Consistent with other results from this study, principals perceptions about teachers connectedness to the school culture was viewed favorably.

Conclusion

Urban principals' approaches to leading urban schools depend largely on their own views toward teacher effectiveness. It was evident in this study that principals perceive teachers as either well qualified or very well qualified to educate urban students. Although teacher quality is cited as one of the main factors in academic achievement, these findings are incongruent with the greater literature on this topic which illustrates that urban school districts perform considerably below their suburban counterparts. Further, they face challenging contextual circumstances mainly due to added barriers derived from poverty.

What are the implications of principals' overwhelmingly positive outlooks on the condition of urban schools and teacher effectiveness? The researchers' have identified four possible implications of these findings. One explanation of principals' positive outlook is that it negates teacher and school limitations, which in turn, can lead to a lack of motivation to improve teaching effectiveness and student achievement. Rather masking limitations through a positive outlook, recognizing areas of weakness can serve as a prerequisite for improvement. Secondly, although the urban education literature abounds with books, reports, and articles explaining the challenging plight of urban teachers and their efforts to increase achievement, it is plausible that selected urban schools and respective teachers for this study are doing exemplary work. In this case, it would behoove researchers to revisit these schools and be thorough in investigating issues which provide validation of principals' experiences and perceptions of teacher effectiveness. A third alternative for this study's findings could be the degree to which principals believe that teachers are able to raise student achievement. It is possible that principals perceive even a limited ability to increase achievement, as a demonstrated ability, nonetheless. Thus, future studies could examine this alternative by eliciting the degree to which principals believe that teachers raise achievement. Finally, these findings may illustrate the existence of two, often divergent, schools of thought in education regarding the primary reason why low student achievement is chronic in urban schools. One school places the focus of inequitable student outcomes on educational institutions. Researchers with this orientation focus on low student achievement as a by-product of ineffective school leadership, teachers, pedagogy and curriculum (e.g. Murrell, 2002; Ross, McDonald, Alberg, McSparrin-Gallagher, 2005, 2007). The other school of thought contextualizes student success issues in schooling within the community and greater socio-economic and political environment in which urban students reside (Anyon, 2005). It is possible, that principals selected for this study are emphasizing the latter position. Regardless of which implication(s) are the most salient, it is clear that the disconnect between urban principals' perceptions of their schools and the literature on teacher effectiveness is an issue that is in need of further research.

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JTLPS

Teacher Ethnographic Research as Epistemology: Using Ethnographic Research to Develop Reflexive Educators in Diverse Classrooms

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Based on fieldwork, interviews and ethnographic research of student teachers, reflectivity is revealed as an important starting point for teachers working with diverse and multilingual students. Reflecting assist individuals as they attempt to assimilate a new cultural complexity, particularly one that is as complex as a classroom full of adolescents. Reflexive practices are essential to meet the learning needs in a multilingual, multicultural and global state. Ethnographic research can indeed provide a springboard into the development of reflective and reflexive educators.

> "I thought that to be a fair teacher you had to be blind to culture, be blind to class because it was so important for me to treat my students equally. But now, and after that (anthropology of education) class, and now that I am teaching, I don't think like that at all."
> –1st Year Teacher

A myriad of questions arise as I ponder the complexity of teaching and learning in a multilingual, multicultural and global state. Can ethnographic research be epistemological? Is reflexivity enough, sufficient or even necessary when teaching in diverse classrooms? Maybe diversity is the problem and we all just need to "get along" and become more like the other. If so, who is the "other"? If the other is "them," then who are "we"? There was great hope when a group of university faculty in California envisioned applying the anthropology of education as a critical component in a major teacher preparation program. We wanted to take what was formally a typical multicultural course and replace it with what we hoped would become a critical course that focuses on the complexity of classroom and school culture. The major challenge has been teaching ethnographic research while doing a major ethnographic project over the course of a single fifteen week semester. There continues to be great hope as well as challenges.

The anthropology of education has been used since the 1950's as a then budding field to understand the context of schools and classroom (Spindler and Spindler, 2000).

As in anthropology as a whole, the aim then was to understand the "other." This necessarily continues to be one of several authentic objectives in "doing ethnography" in schools and classrooms. The authors will posit in this paper that an equally authentic endeavor in the "doing of ethnography" is teacher professional development as they engage in the reflexive practices that are incidental when conducting ethnographic research. A reflexive anthropology displays tensions that include multiple cultural logics that are not just explained vis-à-vis each other but that are co-constitutive (Inda and Rosaldo, 2001). In short, a reflexive practice, whether in ethnography or in education, begins by being ideational but then becomes dialogic in a Bakhtinian sense and manages to provide what I will call mutually sustaining cultural logics. Culture, writ large, becomes the overarching signifier and nothing can exist outside of it. This last idea may at a certain level be completely nonsensical within anthropology but is so essential in education that a required core course in the "Anthropology of Education" was created to address this need.

Since 2004, the Single Subject Program that prepares middle and high school teachers (at California State University,

Sacramento) has been using the anthropology of education as a required course in their teacher preparation program. Preservice teachers engage in ethnographic research with the intended objective of producing reflective and reflexive educators. Using discourse analysis and ethnographic interviews, this paper will explore the ethnographic research of two preservice teachers vis-à-vis their epistemological development as first year beginning teachers. My guiding questions are as follows: What is the relationship between teaching and learning the anthropology of education and beginning teacher professional development? Although reflexivity is arguably necessary when "doing" ethnography, is it sufficient when the reality is that most teachers in California and the U.S. are white-middle class females and will primarily teach in linguistically and culturally diverse schools and classrooms? I will triangulate the teachers' own ethnographic research with ethnographic interviews and participant observation in the teachers own classrooms. My unit of analysis will be temporal since I will compare the beginning teachers' ethnographic research with their first year teaching experiences a year after completing their ethnographic research and once each of them find themselves working in their own classrooms as first year teachers.

Teacher Ethnographic Research as Epistemology: Guidelines for Doing My Ethnographic "Hokey Pokey"

My own "hokey pokey" into ethnographic research was initially provided by the qualitative researcher Anne Haas Dyson and the anthropologist John U. Ogbu at the University of California at Berkeley. Much of my thinking in the following sections is influenced and attributed to them (Personal Communication, Dyson, 1997, 1998; Ogbu, 1997, 1998). Early in my teacher preparation course on the anthropology of education I provide a set of general guidelines that describe the entire process. I explain that a major goal of the course is to integrate a case study of a group of English Learners that is embedded into their classroom ethnography. Student teachers are then given the following assignment description as to what their ethnography should be:

> A report or composition that provides a close examination of an individual classroom in a public school setting and demonstrates an ability to use anthropological approaches including field observation, data collection and analysis and the development and use of theoretical frameworks for understanding a classroom learning environment and a set of English Language Learners within that environment. The Ethnographic study is composed of a range of materials and artifacts and requires candidates to develop a field record in order to analyze and portray the classroom and the set of learners using a range of theoretical "lens" including minority status, cultural difference, and educational dynamics in formal and informal settings along with cognitive, pedagogical and individual factors affecting student's language acquisition. The best ethnographic studies will "tell the story of the classroom" from the perspective of learners and will thoroughly demonstrate the reflexivity of the educational researcher. With permission from the candidate, ethnographic studies will be made available to school site teachers in order to support their understanding of the nature of local classrooms.

I explain to my student teachers that a central requirement for their ethnographies will be that it include a focal group of English Learners. This is a historically underserved population in California and a programmatic decision was made during the current reiteration of the program that English Learners (i.e. students learning English as a second language) would play a focal role in our teacher preparation program. Students are reminded that we will be slowly unfolding the ethnographic drama throughout the course of the semester. Our experience has been that a few of the students have done this sort of painstaking work before but most of them have not. I tell students that they will have the feeling for quite a while of not being quite sure what they are doing and of also wanting to know everything immediately. I confirm that there is actually very little that can be done about this. They are told that they should try to enjoy the experience. My sense is that most of them do but there are a few who I would qualify as "resisters."

In each section of the course, I reassure students that their ethnographic projects are almost always interesting and successful. Almost always, moreover, I add that at the beginning people feel like "I didn't get anything good at my school [in terms of data]." Or, "my career is over and it hasn't even started yet." Or the more modest, "I'll flunk." I confirm that these are all normal reactions to a complicated but very interesting process. My experience has been that these feelings tend to dissipate after data analysis begins. Finally, I suggest that it is probably helpful to talk with other class members and even myself as the instructor for the course.

Students begin the ethnographic process by articulating a general research question. My goal is to get them to begin to think about their own particular educational interests in terms of particular situations or "events" that might merit close study. Early in the semester most questions are quite general. My suggestion is that is usually a mistake to rigidly define what their ethnographic focus will be too early in the semester. My sense is that it is fine to be quite vague as one begins the ethnographic process. I ask students that as they gain more ethnographic knowledge and the have more experiences and interactions from the field, their questions will need to become articulated in more precise language. The nature of their questions about the particular setting in which they are studying guides the particular data collection and analysis procedures that they will eventually use. A major

piece of advice that I give them is that one does not do an ethnographic project to prove something that one is already convinced is true. One does qualitative/ethnographic research to understand something, not to prove something (Personal Communication, Dyson, 1997). In my course, we concentrate on understanding the tools we are using. I assume that their knowledge of their content area (i.e. math, science, social studies, etc.) will inform their projects, but I do not ask for direct references to their content areas.

Students begin by selecting a site and gaining entry. They are encouraged to be very low-key but friendly, and to minimize their interaction early in their fieldwork. Students are reminded that they are likely to feel rather awkward and ill at ease at first but that this is normal. Students are asked to visit the site as much as they can before they begin to formally collect data. This is sometimes not feasible since they have a full course load as part of their teacher preparation program. The expectation is that students will collect five separate sets of field notes (e.g., recording field notes, and transcribing as part of field notes, interviewing) over the course of four to six weeks. Student teachers are repeatedly reminded to think small. They then transcribe and follow the format suggested by Spradley (1980) comprised of note taking, note making and a reflective commentary at the end of each observations. In the next section I provide the full ethnographic text from each of two ethnographies completed by student-teachers that comprise this research. Each ethnography is followed by a detailed transcription of their respective interviews.

Future Teachers' Ethnographic Research: Case # 1
Discordant Goals: Mixed Messages in the Classroom

Following the crowd of students, I entered the classroom of Ms. Mason for the first time on a Friday morning. Students pushed me through the doorway into a richly decorated science lab. Plush toy monkeys with long arms swung down from the ceiling on tendrils of climbing plants toward a skeleton that stood at attention near the teacher's desk. Rows of microscopes waited expectantly below posters with phrases like "Explore it!" on them, tacked up alongside colorful student work. "Patsy," a pale yellow corn snake, moved slowly around the edge of her case while the bearded lizard sat motionless watching the students chatting on the way to their tables. I felt excited to be in this classroom…and nervous. How was I going to be able to capture all of the interesting things that students would be doing in this room?

I soon discovered that it was not difficult to record the action in this room. In fact, there was very little that students did in this room beyond copying what was displayed on the overhead projector. In this extremely teacher-controlled environment, students seemed to navigate the teacher's mixed messages without much pause. The disconnection between the implied objectives of this science class and the actual objectives seemed only to bother me.

Virtually everyone that I observed ignored the inconsistencies and was conditioned to behave in the least "disruptive" way in this class. The teacher, receiving little resistance to her ways, continued in her pattern and I think felt that students were moving along in the class at a satisfactory pace. No one really raised concerns or questions about the material because these kinds of questions were not encouraged. The teacher thought students were engaged because they were quiet. Students, on the other hand, were accomplishing what was required of them for this class, in addition to a bevy of other illicit classroom behaviors. I saw that students didn't really care that they weren't learning; it was easier to "go with the flow" and move on with the day. The few who were really interested in science were thoroughly engrossed regardless of the actual material being covered. Everyone else understood how to navigate this class; they were just "getting through it."

The focus of my observations became evident quickly. I wanted to know: What is the relationship between goals projected and goals realized as it relates to the teacher designed space, teacher directions versus teacher actions and teacher reactions to student participation in discussions?

Background

In order to explore the perception and functionality of goals in Ms. Mason's class, we must understand the meaning of "goals" as it relates to this context. For the purpose of this paper, "goal" is defined as "an aim or result" ("Goal," 2006). To understand this classroom culture better, a brief discussion of goal theory as it relates to motivation is required. In the framework of the classroom, goal theory suggests that students or learners "direct their behavior" toward "mastery" or "performance" outcomes (Ormrod, 2006, p. 179). Mastery goals are aimed at gaining knowledge while performance goals are defined as "reflecting a desire to look competent in the eyes of others" (Ormrod, 2006, p. 179).

Within performance goals, there are subcategories of "performance-approach" (desire to show high-ability) and "performance-avoidance" (desire to avoid showing low ability) that can impact the overall success of learning in the classroom if they become the overarching marker of achievement (Kaplan, Gheen & Midgley, 2002, p. 192). In this context, the focus by the teacher on one form of goals over another can be a decisive factor in determining the level of engagement in the academic content of the class. Instructional style, teacher-student exchanges and environmental factors "are likely to establish different norms of behavior that would affect every student in the environment" depending on the teacher's intent in designing a mastery or performance goal atmosphere (Kaplan, Gheen & Midgley, 2002, p. 194). In a performance-avoidance goal-oriented classroom, students are expected to participate at a minimum level. Students can appear "on task" but be engaged in other activities because there is low motivation to gain mastery skills in an environment that does not promote such values.

A second implication of the nature of this classroom must be described for this ethnographic study. The teacher-focused environment of Ms. Mason's classroom extends to the framework for the case study of English Learners (EL). Ms. Mason was unaware that there were any EL students in this class period. In fact, she questioned that I was in the right room because she didn't think there were any EL students present. She made no accommodations in differentiating her instruction. Furthermore, she determined the students of focus for the case study. After obtaining a list of EL students in her class, I asked her to point out the students so that I could observe them. Out of my list of five students, Ms. Mason only showed me the first two students on the list.

Ms. Mason's ignorance of her EL students points to a "misconception" that Jim Cummins describes as an assumption that students' "adequate control over the surface features of English...is taken as an indication that all aspects of their 'English proficiency' have been mastered" (Baird, Berta-Avila, Lozano, McFadden, & Mejorado, 2005, p. 180). The extent that Ms. Mason interacts with her students combined with Liberty Unified School District policies on English Learners could reinforce this misconception. At this school, students whose CELDT level is lower than "L3" are not in science classes. They have additional sections of English and math classes. This may not be the explicit policy of the district, but this is the practice at this school. Indeed, the district, and as a result, the school, emphasizes this misconception by regulating the course selection for L1-L3 English Learning students.

On a final note, it is necessary for the reader to appreciate the position of the observer. Just as the description of my interaction with Ms. Mason in showing me the EL students in her classroom indicates, my movements and level of participation within the classroom was severely restricted. It is important for the reader to recognize that this study is indelibly marked by the constraints placed upon me by the teacher in my capacity as researcher, observer and participant. Contact with students and my movement within the room was not encouraged nor was my presence ever explained to students. Avenues of exploration and participant-observation were invariably closed to me through implicit indicators from Ms. Mason. It was as if I was invisible. In another way, this is a positive trait of this study; I have no reason to think that the teacher performed differently when I wasn't in the classroom.

Methods

Site

This study takes place within a 7th grade Science classroom at Jaclyn Ryan Middle School in Old Oak Unified School District. The school is located in the heart of the "old town" area of Old Oak, California and is the oldest middle school in the district.

There are nine tables in this classroom and students face each other at tables of four. There are a total of eight lab stations located on either side of the room and at six of these stations, there are individual student desks. There is a large teacher desk and lab station at the front of the room in addition to a teacher computer station. There is an overhead projector and screen in one corner of the front of the room and a television with VCR/DVD player in the other. There is a double, sliding blackboard at the front wall of the classroom and a set of bookshelves in the back of the room. For additional details and a visual representation of the classroom, please refer to the classroom maps at the end of each entry of field notes.

Participants

The participants of this study are the 16 male and 16 female 7th grade science students, totaling 32 students. The science teacher, Ms. Mason, is female and white. The breakdown of "ethnicity" in this classroom according to the school is as follows: 14 responded "White," 7 responded "Hispanic," 3 responded "Asian," 3 responded "Pacific Islander," 2 responded "African American," 1 responded "American Indian" and 1 responded with "decline to state."

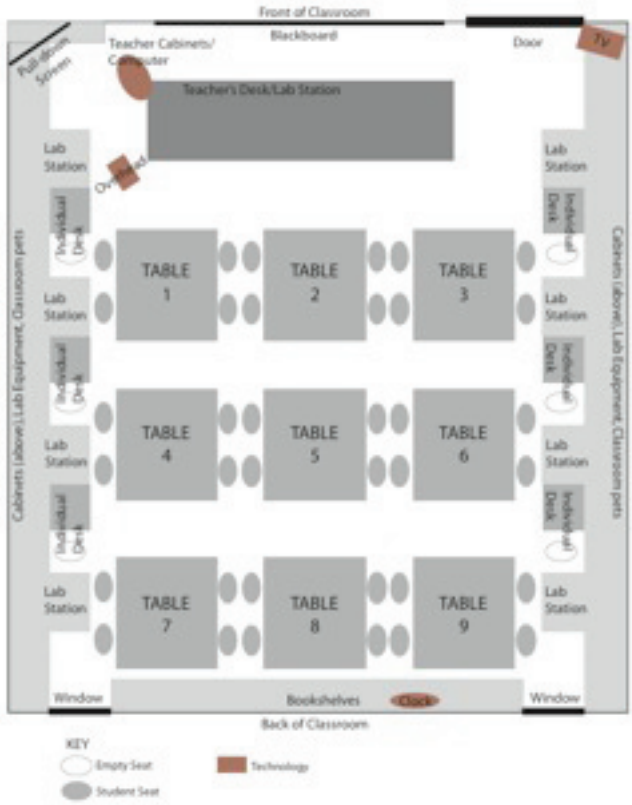
The students who emerge as a focal point to the study are: Cece, Nelli, Vicki, and Jimmy. In my observations before obtaining the student roster, I made some mistakes in my descriptions of students. Originally I mistook Cece's ethnicity for African American and Jimmy as white. Later, I learned that Cece is listed as "Pacific Islander" and Jimmy is listed as "Hispanic." As mentioned before, although there are five English Learners in this classroom, Ms. Mason selected the students in my case study. These students are Nelli and Vicki. The unidentified EL students are Shawn, Tony and Steve. All of the EL students are "L4" or "L5." Nelli is listed in the roster as "Asian" and Vicki declined to state her ethnicity. Nelli is Punjabi and her CELDT level is "L5." I was able to see Nelli outside of this class and she told me that she was born in the United States and spoke English before kindergarten. Vicki was difficult to approach because of the structure of the class and her shyness. I know neither her first language nor her cultural background but her CELDT level is "L4." My best guess is that she is Chinese but this is only a guess and an ill-informed one at best. More minor, but named students in the field notes are: Bei, Colin, Kevin, Scott, Mark, Susie, Jared, Jinny, Nicolette, Cara, Shawn (EL student), Sara and Ellen.

Data Collection Procedures

Data was collected and recorded in field notes over five separate visits to the same class and period of the day between the dates of February 24, 2006 and March 24, 2006. Four of the visits were approximately an hour in length and one visit was on a minimum day schedule of approximately half an hour. Ms. Mason's class began at 9:00 AM and ended at 9:56 AM, with the exception of the minimum day when class began at 9:00 AM and ended at 9:33 AM. In addition, there was one informal extended conversation lasting approximately 20

Figure 1

Classroom Set-Up



minutes with the EL student named Nelli before this class on March 24, 2006.

There were no official interviews with the teacher. Ms. Mason was not in her classroom before class started and I was given the impression that she didn't want to interact with me very much. Pieces of conversation are summarized in the field notes. There was also one conversation with the EL Coordinator for the school site in which I got a roster of the class with a listing of EL students and their CELDT levels. The first two observations did not have a focus so much as I was trying to capture as much dialogue and action as possible. The last three observations are more focused on the actions and dialogue of Nelli and Vicki, the two EL students I was watching for the case study. Also, in the last three observations, I tried moving around the room discreetly during "transition" times during the class so that I could observe both EL students. I also changed the location of my seat in some observations. Classroom maps were drawn for each visit and mark where the students of interest were located as well as my own location or movement throughout the period. All observations were recorded in a qualitative format.

Data Analysis Procedures

Most data was collected through visual and auditory means and was recorded in the "Note Taking" side of the field notes. As I was trying to record as much as possible, it was difficult to analyze "on the spot" and so I indicated items where I had questions and made the majority of my "Note Making" or data analysis afterward in the data transcription phase. As I transcribed my notes, I created categories of experiences related to the kinds of responses given by participants in student-student and teacher-student interactions. I also began organizing data into the kinds of messages being sent from the teacher to students and student reaction to those messages. When I noticed patterns of contradiction between these messages, I subdivided these segments into three final types of contradiction.

Findings

In analyzing my observational field notes for Ms. Mason's Science class, I have found that there is generally a discordant relationship between the goals perceived and the goals actualized within the teacher-created culture of this classroom. This relationship can be seen through three main types of exchanges between teacher and students.

The Affect of the Teacher-Designed Space Versus Teacher Instructional Style

The intent of the teacher-designed space is in conflict with the teacher's instructional style that results in a restriction in student activity and movement. The choice of wall decorations, objects at the lab stations and the desk arrangement reflect a goal of exploration and cooperation. The choice of instructional delivery that ignores the choice of classroom aesthetics results in a goal of compliance.

After viewing other Science teacher's classrooms, I noticed a variety of student desk types. One room had traditional individual student desks in rows, facing forward; the Science room in which my cohort of student teachers met for class on this campus had individual student desks as well. Another Science room had long, narrow tables seating two to three students, facing forward. As seen in this section from the field note classroom maps, Ms. Mason chose large rectangular tables that could seat four students. The seats faced in toward the table from two sides so that students were facing each other.

INSERT GRAPHIC

Other aesthetic choices made by Ms. Mason were recorded on February 24, 2006:

> "There are many posters of animals on the walls and there is a wall clock that says "2:00 p.m.." There are at least 5 hanging potted plants. Around the room there are various aquarium-like containers that house classroom pets consisting of a lizard and two snakes. There are many microscopes sitting on the counters toward the back of the room."

These choices are interesting in light of the teaching style of Ms. Mason. Much of the instructional content was delivered through teacher monologues. In my observations, there was only one instance of teacher sanctioned "group discussion" that was timed (by the teacher) for two minutes. Students were in their seats at almost all times and forced to be constantly twisted in their chairs so that they could face forward but also lean over the tabletop to write down notes from videos or the overhead projector.

In my visits, there were no activities observed that used any of the materials or resources of the room. No mention of the classroom pets or plants. No references to lab activities, microscope use or the skeleton (even when the students were covering bones and muscles). In my conversation with Nelli, she told me that they looked through microscopes once and it was fun "cause they got to draw what they saw" but mostly they took notes. She said that it would have been "cool if she (Ms. Mason) had passed around bones" when they were learning them or if they could "touch animals." Nelli said that Ms. Mason told them they could do experiments (that are described in their books) at home for "extra credit."

Clearly the implicit message of the classroom aesthetics does not match the activities that the teacher directs. One would expect the room and teacher style to be in harmony because "the learning environment in a classroom [is] a reflection of the teacher's philosophy of teaching and learning" (Frank, 1999, p.42). This is not the case in Ms. Mason's classroom. You would expect the teacher in this room to have an open and collaborative tone by inviting students to explore many facets of scientific study. The reality is that the room and the teacher do not match. The room should have individual student desks that are in rows and face forward if the room were to match the instructional delivery most often utilized in this classroom.

These attributes of the classroom and the teacher instructional style indicate that Ms. Mason may be struggling with how she wants to be characterized as an educator. It strikes me that she may have internal conflicts between her love of science and a weariness of teaching within strict content standards that raise the pressure to cover a certain amount of material within a term.

The Result of Teacher Contradictions on Instructional Sequence and Meaning

The directions of the teacher often contradict teacher action in terms of the instructional sequence and meaning and consequently, students learn to physically appear "present" while mentally disengaging from the teacher commentary. The teacher's first statement often does not correlate with her actions and/or the teacher issues a secondary statement that is in opposition to the first. Consequently, students do not expect meaningful messages from the teacher and there is little motivation to become engaged in the teacher's dialogue.

For example, students were going to be taking a quiz on the morning of February 24, 2006 and the following took place:

> Ms. Mason: Okay, 4 minutes to study. Get busy. (Ms. Mason starts timer.)
>
> (Students start talking. Words heard: "tibia, clavicle, pelvis.")
>
> (Some students are silent. Some are talking to one other person at their table. At some tables, everyone is talking together.)

Ms. Mason: Okay guys; make sure you get the agenda. Assignment #17 if we get to it, we probably won't.

(Timer beeps)

As you can see, Ms. Mason issued the second instruction about the "agenda" within the 4-minute time period she had set for students to study for the quiz. As the quiz began, Ms. Mason followed this pattern again, but through her actions. She explained "I'm setting the timer for fifteen minutes. If you do not finish you have to come at lunch or after school." At 9:17 AM, Ms. Mason said "Okay, 15 minutes." and started the timer. At 9:30 AM, when only 13 minutes had passed, Ms. Mason said, "Okay, all tests in. If you need more time, write that on your test and then turn it in." At 9:32 AM, the timer sounded and Ms. Mason walked over and turned it off.

I think what is hardest for the observer to understand is that not one single student objected to this injustice in the timing of the quiz. The students in this class are so conditioned to multiple, conflicting directions and actions from the teacher that they have learned how to sift through Ms. Mason's wording and actions to determine, as a group, what is expected from them. This group consciousness is formed out of a sort of social constructivism whereby students "gain better understandings than anyone could gain working alone" so that students appear on task (and sometimes are) but may be engaged in other activities (Ormrod, 2006, p. 19 & 103). They have learned what to "tune out" and still appear "on task." In the 4-minute study session, students had grades at stake and were busy studying when Ms. Mason discussed the agenda. Students were focused on their own goal of test preparation so they ignored further commentary from Ms. Mason.

The Impact of Teacher Responses on Student Participation

When student participation is solicited in class-wide discussions, the teacher reactions are usually expressed in one of two ways: no validation of student response and/or student response is related back to the teacher's own personal experience commentary which impacts the quality and frequency of student participation in active learning. When students offer compelling and topic related comments and anecdotes, Ms. Mason does not positively reinforce this student behavior and thus reinforces her preference for passivity in her students.

On March 16, 2006, Ms. Mason was discussing drug abuse and addiction. The following are two excerpts from the class-wide discussion:

(Ms. Mason asks a question. No one answers. Then 1 student says something. Ms. Mason begins to speak about club drugs.)

(Different student is called on and describes a related news story she saw.)

(Ms. Mason starts talking about undercover cops she knows.)

(Another student is called on and tells a story about being at a concert and seeing drug use.)

(Ms. Mason continues to talk about undercover cops and how they probably won't arrest you for marijuana unless you are causing a problem.)

Toward the end of this class period, this pattern was repeated but the implications of Ms. Mason's reaction are more severe. Cece, a student who usually "called out" without raising her hand and was often the object of teacher reprimand, raised her hand to speak and the following took place:

(Cece raises hand; Ms. Mason calls on her)

Cece: My cousin got expelled from school for selling and my other cousin was on drugs and my other cousin died...

(Ms. Mason: no visible response to Cece)

(Ms. Mason starts talking about how people will do anything to get drugs and get high and then tells a story about her friends who are prison guards. Tells about prisoners mashing up bananas or peanut butter to shoot up with.)

(Many students' voices heard. Some say "eweh! Why?")

Ms. Mason: "Because they'll do anything to get high..."

In the first situation, Ms. Mason is more involved in her own connections to the subject matter than in listening to the information that her students are giving her. She doesn't seem to use this as a way of understanding her students' prior knowledge and letting that help pace the kind and quality of the lecture-discussion. Ms. Mason's apparent inability to surrender her own stories for those of her students leads to an environment where students are implicitly told through Ms. Mason's dialogue: your stories, life experiences and questions don't matter.

In the last exchange, we can see that Ms. Mason is uncomfortable with the seriousness of Cece's intensely personal story. Rather than sensitively addressing Cece and

making her story into a "teachable moment," Ms. Mason retreated into her own experiences rather than those of her students. Ms. Mason does not use what Haim Ginott termed, "congruent communication" (Ginott, 1972). By congruent communication, Ginott means a teacher should treat students with dignity, and use specific, harmonious language that reflects the student's feelings about him or her self and the situation (Ginott, 1972).

Significance

In discussing the lack of congruent communication within Ms. Mason's classroom, I realize how essential it will be for me to be reflective in my own teaching practices. As I studied this classroom and its participants, it became clear that the inconsistencies in messages stems from a sort of identity crisis on the part of the teacher. Ms. Mason is unsure of whether she wants her classroom to be an exploratory, student- focused place or a lecture, teacher-focused environment. She is unable to align her intentions with her practice and thus produces an off-balanced feeling in her room that leads to disengagement by her students.

The ramification of these contradictions, beyond their disengagement, is that students are not the origin of learning in this environment. Students' prior experiences are not valued nor used in planning instruction. Their "funds of knowledge" are not probed and used as a springboard for furthering the depth and quality of their education. Instead, Ms. Mason's "funds of knowledge" become the important indicator of the direction of instruction and students are unable to access meaningful learning.

In observing this classroom culture, it causes me to reflect upon the messages I send to students. In my own experiences and education as an artist and graphic designer, I have become sensitive to dissonant relationships between messages and the method through which those messages are delivered. In recalling the work of Marshall McLuhan and his communication motto, "the message is the medium," I consider carefully the means I choose to send messages. The aesthetics of the space, the format of my syllabus, the arrangement of chairs, the organization of the progression of curriculum and my speech all reveal my overall vision for success in my class. Being a restricted observer in Ms. Mason's class reinforces the extreme importance of trying to thoughtfully craft the messages, explicit and implicit, that I send my students. If I do not identify my attitudes and beliefs about my own instructional style, I will sabotage my best intentions because it means that I am not evaluating those intentions against the reality of the climate of my classroom culture. If my thinking is muddled in how I plan to teach, students will see this lack of clarity and it will signal to them that "getting through" is preferable to actively participating.

One of the values that I bring to my classroom is the belief that all students are intelligent but rather are not always given the opportunities to best exhibit their intelligence because of uncreative teacher methodologies. Ms. Mason's style emphasizes for me that I must always strive to build my curriculum around student needs and capitalize upon their interests as a way to draw them into the study of art. This needs to be what drives the design and system of the content of my classes. If I do not recognize my students' strengths and areas of opportunity for growth, I am not meeting their needs in becoming a well-rounded, positively contributing member of society. This is not to say that my interests in art should not be exploited in letting students see my passion for the arts, but rather, my interests should be used to compliment the learning situation, not take center stage.

If I let student knowledge and interests guide the instruction, I can better address students who may be learning English and those with emotional, mental and physical challenges. I can better augment the content delivery to meet all of my students needs if I do not become too reliant on one model of instruction over another. By varying the kinds of learning activities and explorations, my students can experience the many modes of art: production, criticism, aesthetics, and history and together we can construct meaningful knowledge that pushes all of us forward in our critical thinking skills. This can only flourish if I train myself to respond to my students' needs by listening to their stories, understanding their questions and becoming involved in their learning. Using these insights can help me create an environment that correlates with sound teaching strategies that include students in the learning process and thus I am less likely to send contradictory messages about the goals of my class to students.

Ethnographic Interviews: Case #1

In ethnographic research, an embedded unit of analysis is always temporal conducted the following interview a year after Jennifer completed her ethnography. The setting was her own classroom and here's what she said:

> LOEZA: "Let me take you back to the course on anthropology of education. What did you think was the goal?"
>
> GRAVES: "I think (that the goal was to learn) how to approach your classroom of students from the outset. Trying to come in without too many judgments about your students but then also doing some investigative legwork about who they are and where they're coming from even before they walk (into) your classroom... And sometimes where they're going after... and taking that into consideration, not to say that you make excuses for students. You never do that. But you need to have a better understanding of who they are and where they're coming from so that you can connect your content better to their lives. I think what happens

in reality is that those students that are red-flagged, or I notice things with them, I then can use the skills from ethnography to find out more about them. Sometimes I think it's just really listening (to) the way they talk, as much as what they say... and listening to that body language and using that as a starting point for helping this kid fit into your class better or if there's something else going on outside."

In my other school, I have one student who lives in foster care and finds it difficult to deal with herself when she gets frustrated. She has particular outbursts in class and starts swearing. The ethnographic skills help me deal with her reality as I try to find ways to help my students:

LOEZA: "What are the biggest issues in terms of working with diverse students?"

GRAVES: "Keeping up contact with the home. When I was student teaching I had more time to make a call home or send an e-mail because I had less classes (to teach). Now I'm just in survival mode. I see myself now calling more for behavioral issues. At one school I get more contact by parents than at my other school. So I think keeping in touch with the home is a hard one."

LOEZA: "What is different in teaching art than teaching other content areas?"

GRAVES: "There is greater flexibility in teaching art according to the standards that in other content areas. There's always the element of choice when doing art. Even when everybody is doing the same project, there is choice as to how it is done. One good example is our discussion on popular art and to their individual life. I try to branch out in art and to connect it to their lives. Most art is greatly influences by western (European) art and I try to find pieces that connect to them such as when we did Aztec art."

LOEZA: "What would you like your students to take away from their time with you as they get older? Let's say ten years from now."

GRAVES: "What I would like my students to have as they grow up is to know that there is power in being able to create something with your own hands. Most of them come in thinking that they can't do art. They will even tell me that they can't do art. I think that's a powerful feeling to know that you can envision something in your head, get it down on paper somehow and actually create this object in three dimensions. I think this is powerful."

My biggest goal for my students as they get older is that art changes the way they see the worlds. That they actually see a pot, for example, and because they did it, they understand the complexity involved in doing that piece. My greatest hope is that they start to develop an aesthetic sense on their own and have opinions about visual culture and can back it up ...with evidence from what they see or know from their own experiences.

LOEZA: "What do you enjoy the most in teaching?"

GRAVES: "I love the problem solving part of it and that moment when they get it, and you can see them getting it, and they're excited that they got it, and you were actually there to see it. I know this happens like this in small ways all the time but you're not always there to see it when it happens. This part is exciting. And, I don't know, I go into a whole different mode when I'm teaching. I don't pay attention to anything about myself in particular. I'm very much in the present. All rest or parts of my day I'm focused about things in the future or things in the past. But when I'm teaching, I'm right there, all the way. Just being right there or just helping them see that they're really close to something and helping them see that they're really close to something ... that they needed just that little push to get the rest of the way...to help them see that they got the problem on their own."

LOEZA: "What do you hate about teaching?"

GRAVES: "All the outside not teaching stuff. In the classroom what I hate dealing with the most are discipline issues. That's not fun."

LOEZA: "How would you describe your classroom management style?"

GRAVES: "I'm not a super loud person, although sometimes I have to get a little bit louder. My classes are not very loud. I start my classes and my students take notes on what the behavioral standards are and what things look like in this classroom. I tend to be somebody who has a lot of procedural and organizational kinds of things that help things stay calm and that helps people know where they should be and what they should be doing. Part of it is routine and they come to expect certain things from me. I have the agenda and objectives written down. They understand that I'm

around for help but that they should keep working because there is one of me and lots of them. Being as fair as you can be helps and (I) try to check in with my students a lot, particularly those that are at the end of the grade scale. It's all about improving themselves in the class. For me, it's all about having procedures and organizations. This helps me feel that I'm in control of things and they feel that I'm in control of things as well."

LOEZA: "Anything else you would like to add?"

GRAVES: "That I think that even if I'm not able to identify how my courses help me, I know they have. I think that sometimes right now because it's my first year I can't step back and look at it analytically. I know that it's all there and that it surfaces at different times and that it helps. I think that I'm so in the middle of it that it is hard to identify them but I know that they shape how I approach things."

Future Teachers' Ethnographic Research: Case # 2
Teaching Style and Student Motivation

"Society is made of people's reciprocal relations with each other. Equity, justice, and respect are necessary in order for people to have positive relationships. The strife for this social norm, however, is often abandoned at the foot of the classroom."

One English Learning classroom in particular, displays inequity as the teacher's formal authoritarian teaching style stifles students' agency. In turn, students that lack this agency and self-autonomy begin to lose, if not already have lost, intrinsic motivation to carry on tasks without supervision.

Tao, Peter, and Saheed are students in Ms. O's class. Tao, for the most part, is obedient, Peter is a jitterbug, and Saheed likes to talk. Though all three students vary in manner, one thing is definite—all of them are on task when Ms. O overlooks the class. However, the moment that Ms. O is preoccupied or is not present, most of her students, including Tao, Peter, and Saheed, are unable to manage their tasks independently.

For some reason, Ms. O had to leave the classroom. As for every Friday, students are to get into their reading groups, and then they read assigned books aloud to their group peers.

Ms. D, the student teacher, has been a part of the class for some time now therefore she assumed the students knew the routine. She tells them to get into their groups, pick a book, and read aloud. All the students got up from their chairs and moseyed into their groups, but thereafter, half of the students did not know what to do next.

Tao, who usually picks out a book for her group first, was in this case the first one to say, "I have no clue what to read." When one of her group members suggested a book, she responded, "This is the boringest book ever." About ten minutes of class has elapsed by now.

All the while, Peter is continually throwing a pencil up in the air and catching it. Ms. D was across the room dealing with another dilemma that she was unaware of his behavior. Peter continued to throw the pencil higher and higher. At the opposite corner, Ms. D was handling a girl crying. It seems that her group members taunted her by saying that she is "in 8th grade" and that she "should know how to read this." Her feelings were hurt and she sat with her face on the table sobbing. As time went on, the girl simply sat there with her head on the desk.

Saheed read aloud for the whole entire class period. None of his other group members bothered to take turns. The two female group members also continued not to listen to him. Finally, the class period was ending so the student teacher tells them to pack up. This routine, however, does not bypass them because at five minutes to the bell, all of them had their backpacks on and were ready to go.

Ms. O is on her way back which is made visible by her shadow on the right window. She has to come all the way around to the opposite side to the door. Suddenly, a student yells out, "be good, be good, here she is." Immediately, the entire class took their backpacks off, sat there quietly, and waited for Ms. O to burst through the door.]

The students are aware of how to act when Ms. O supervises them. They understand that they need to "be good" for Ms. O. Conversely, their purpose of acting "good" when Ms. O is watching dissipates when she is not present. Without Ms. O's authority, the class becomes chaotic. The students are used to having this grandiose presence of order hovering over them that when it is suddenly taken away, they break and lose their composure. Even Tao who is usually on task loses her responsibility as a class member. Peter who acts against his urges to throw pencils when Ms. O is present is not able to self-contain his actions, or even worse, he is not aware of the way he is behaving.

Thus rises the question of the relationship between teaching style and student agency as it relates to motivation. It seems that the students are conditioned to act accordingly to Ms. O's authoritative rule, which can be an effective way to learn, but to what extent can the students begin to think about their actions for themselves. Their intrinsic motivation to carry on tasks without supervision is hindered and replaced by external and continuous reminder of how they should act and work properly. Background:

The classroom teacher, Ms. O, uses a formal authoritative teaching style wherein she tends to "focus on content. This style is generally teacher-centered, where the teacher feels responsible for providing and controlling the flow of the content and the student is expected to receive the content."[1] This type of teaching style does not allow much student

1 http://members.shaw.ca/mdde615/tchstycats.htm

participation and opinion sharing during class time. Thus students do not build personal relationships with one another nor do they build one with the teacher.

The classroom culture in Ms. O's class is a weary one. The students do not know each other's names. It is safe to assume that they do not know much about each other's background as well. Although they do work in groups, the students get each other's attention by either tapping each other and/or calling at each other with "hey." It also seems that when students formulate and asks questions that are not to the teacher's liking, they are easily dismissed. Ms. O covers a significant amount of information, therefore it seems that she has to time to divulge outside the agenda.

This classroom has a richly diverse demographic. There are about forty percent Latino/Latina, thirty seven percent Asian/Pacific Islander, thirteen percent Middle Eastern and ten percent Russian/Ukrainian students in the classroom. Most of them, if all, are fluent in their mother tongue. Most of them have parents who speak little or no English at all. Ms. O stated that parent phone calls are hard to manage because of the language barriers.

The classroom does not allow students to speak in their native tongue. They are immersed in the English language. Most of the students still have strong accents, which is very pronounced when they read aloud in their groups. Furthermore, the classroom curriculum does not appeal to their diverse background. The class work mostly consists of silent reading, journal writing, and grammar. The students are engaged in grammar. There are many students who are willing to answer when the teacher asks for volunteers to correct grammatical errors on sentences. The students usually do grammar where Ms. O is at the front of the class for fifteen minutes of the fifty minutes they have of the period.

Ms. O stands in front of the classroom where there is an overhead projector between her and the students. The classroom desks are set up in a U shape configuration. At the top where the U- desk ends is her lecture point. Ms. O's desk is in the back of the class. She has counters in her classroom where she keeps her own coffee maker. On the bottom of the counter, she has the classroom pet bunny. The pet is inaccessible to the students. The classroom reflects her authoritarian teaching style. The desks do not easily maneuver in a group formation. This is, however, a great set up for lecture based class since every one has easy access to see the teacher.

In a more macroscopic level, Dewey Middle School is diverse as well. Most of the students are middle class status. It is a fairly new school. They reopened the school in 2004-2005 school year and are still going under renovations. There are not many resources available for English Learning students. There is less resource available for parents. There is a community center about a mile and a half away from the school. The Dewey Community Center offers basic counseling for EL parents. Like Dewey Middle School, the surrounding neighborhood is relatively new and unfinished.

Bring this back into Ms. O's classroom, the students do not have access to vent their frustration as an EL student. They are not encouraged to speak up in class. Although they all can identify being from different cultures, the classroom culture does not embrace this aspect of their growth. It is a cut and dry class, which by all means, is effective in teaching the students grammar and syntax, but is lacking the environment for holistic learning.

Method

Sites and Participants

The classroom observed is an integrated class of sixth through eighth grade students with level three or below English language competency. The classroom is located in K-1 portables just on the outskirts of the cafeteria. Ms. O is currently attending University of California, Davis to earn her masters degree. The students are coupled in this particular group for most or more than half of their classes. The EL students are mainstreamed in one point of the school day. Tao is a Chinese- American immigrant, Peter is half Chinese, half-Japanese student, and Saheed is a Middle Eastern student who is also a language learner in his native tongue. Although, Tao, Peter, and Saheed are the main students followed, this ethnographic study primarily looks at the teacher's teaching style and how this affects all of her students' motivation to learn without supervision.

Data and Procedures

For about seven weeks, I observed Ms. O's class every Friday during fourth period. I was one of the two observers that visited Ms. O's classroom during the same time frame. I would sit primarily behind the students. This position gave me a wide spectrum of the room; I was close enough to overhear conversations yet far enough to be unnoticed. I also collected data by interviewing two students, Tao and Christina during their lunchtime. Tao and Christina invited the other observer and I to walk around Dewey campus. In that intimate setting, I had the privilege to observe Tao and Christina's daily lunch routine, the cafeteria, where many of Ms. O's students ate box lunches, and the blacktop, where students often played games. Tao also shared what she liked and disliked being in middle school and more importantly, in Ms. O's EL class.

Data Analysis and Procedures

In order to prevent my biases from spreading all over my observations, I divided my observations according to the note-making and note-taking sections.[2] In Frank's Ethnographic Eyes: A Teacher's Guide to Classroom Observation, she teaches the student teacher to take unbiased and exact notes

2 Frank, Carolyn (1999). Ethnographic Eyes: A Teacher's Guide to Classroom Observation. Heinemann: Portsmouth, NH. ISBN 0-325-00201-0.

with a time frame included. In every observation, the time is progressive and the notes are split into those two sections. I did not dissect my observation until after I have made all my observations. However, I did experience my "aha" moment, I tried not to focus on that subject too much because I felt as if it would tint the rest of my observation. When all my observations were in tact, I carefully reread all of them threading related information together. What I found out in my observation is that started to focus my discussions based on Ms. O and her relationships with her students. Why is Ms. O's relationship so formal with her students? Why did I feel distant to her even as her colleague? Thereafter, my theories about her authoritarian teaching style started to formulate. As I started taking on that standpoint, my observations made it more than clear that there is definitely a connection between her teaching method and students' behavior—more specifically, their intrinsic motivation.

Teaching Style: A Direct Link to Student Motivation

[Side Note: The three assertions to follow are direct reflections of my thoughts and progress. Thus, each assertion is interconnected by idea as well as time.]

Claim One

The authoritarian teaching approach is a teacher-centered way of learning. This method invites most of students' attention to focus on the teacher. Although Ms. O gains the attention in the classroom, the reciprocal backfire of this method is disconnection with her students.

[Ms. O sits on the curb with her arms crossed and waits for her class to line up properly. She is wearing gloves, turtleneck, and a vest since the weather is cold outside. She tries to make eye contact with the students who keep moving around in the furthest back of the line. She continues to wait until they are silent until she lets them inside the classroom. The students earned five minutes of free time from the previous days, but that gets taken away from them. Ms. O reviews the school rules and then further proceeds to give examples of what she saw that violated this.

They are now ready to work. Ms. O poses the question, "how can we make the environment better?" The students are to write a quick write on this subject. Not one minute later, Ms. O is telling some of her students to improve their penmanship. She further tells other students to sit up properly in their chairs. When Saheed starts to talk to Tao, Ms. O head over to them and asks Saheed what he is inquiring about. She explains to Saheed the task at hand and waits for him to understand. Everyone is quiet and writing.

As Ms. O starts to walk around again, Saheed shouts out, "I have a question! What is in a hotdog?" Mrs. O asks him right back, "why are you asking me this?" Saheed turns his head back on his paper and begins to write. Ms. O continues to move about and occasionally scolds Peter to finish his work.

After twenty minutes, Ms. O stands in the front of the room and asks for some students to share. The class is ill responsive and Ms. O gives out some examples. Saheed comments, "I think we need flowers to make our school nice look." Ms. O expands his thoughts and tells the students that some of the classes around school are growing tomatoes. Saheed gets excited and begins to explains, "In Pakistan, we had plants, different plants, and my friend..." Ms. O cuts Saheed's thoughts and reminds the class that they need to write down the agenda and their homework before class ends.

Ms. O writes the following on the board: reading, new vocabulary, silent reading. Students are writing while she gives out directions. No one has their hand up, talking, and all of them are writing on their school calendar. Saheed and Tao are writing with their heads lowered into their notebooks as the bell rings.

When Ms. O is in front of the classroom, she commands attention in every way: eyes, ears, body, and mind. Her class time is well spent, always succinct and never divergent from her agenda. As one will observe, there is barely any time for any of her students to be off task. When Peter is not working, she makes sure that he gets back to the worksheet. The students are constantly on their toes to make sure they are on her "good" list. The students are told to sit upright, better their penmanship, and not to ask silly questions. Each student understands when Ms. O is not happy with his or her behavior. All in all, this classroom sounds like a "perfect" classroom.

From a distance, one would agree with all that is mentioned in the description above. However, let's think about Ms. O's effort in keeping her class in such a manner. Ms. O has to ensure that her class is on task by constantly scrutinizing each student's every move. The students do not learn how to behave on their own. Ms. O spends a massive amount of energy to restrain her students from acting like people. Students are, in the first place, people who need relationships with their peers. When Saheed had a question to Tao, Ms. O cuts this opportunity for a peer learning and takes it upon herself to answer his question. Students learn mostly from each other in corporate learning.4 Perhaps, Tao would have had an opportunity to recap what she learned if she were to explain her answer to Saheed. Instead, Ms. O asserted her position as authority to answer Saheed.

Tao did not even need to further explain or assert her own opinion. It seems that if Ms. O is the one stating her opinion, there is not a need to battle or agree. It is simply left as is. To clarify this thought, let's use another example: Saheed has a question about hotdogs. On the surface level, his comment is inappropriate in the context at hand since the students are writing about "how to better the environment." Yet, it seems that his concern is legitimate as he asks this question with fervor and without laughter or sarcasm. In context, his question does pursue some sort of acknowledgement from Ms. O. Hotdog ingredients are an abundance of unhealthy material for our bodies, thus it correlates with the waste that

we pollute our very environment. Saheed's abstract thinking is hindered by Ms. O's abruptness to silence his thoughts.

Perhaps to take this even further, one can safely assume that the depth of class discussions in this EL classroom wades on the surface level of thinking. Ms. O's persistence in keeping to her agenda limits divergence of the students' critical thinking. Critical thinking skills students acquire through questioning and linking similar ideas are hindered by the strictness of Ms. O's agenda. Neither Tao nor Saheed question her authority or her logic. Are we fostering students who are incompetent to voice out a difference of opinion?

Lest not forget that Ms. O's class is also an EL classroom. Most of the students in this classroom are not fluent in English and they do often shy away from public speaking due to many factors like their accents and low self esteem caused by culture clashing. In such a classroom where their language acquisition is level with their peers, this should be a safe and inviting atmosphere for them to practice their verbal ability with each other.

Summing all of these factors together, the overall underbelly of Ms. O's classroom culture is one that is tight knit in curriculum but does not serve students holistically. The classroom is rich with ethnic diversity with students from all backgrounds, yet their curriculum does not reflect nor incorporate this diversity in their learning. Ms. O appeals to their cognitive thinking but she does not promote emotional and cultural development. The lack of intimacy in her classroom is detrimental in building relationships. She scolds, punishes, and shuts her students down quickly and easily because she has no personal relations with them. Ms. O is disconnected with her students and likewise, her students are disconnected with her. In fact, the students are disconnected with each other. They barely know each others' names and background. We will explore this notion further as students move into group work where Ms. O's time and focus is split between groups. It is then that the disconnection in the classroom relevant and becomes a barrier to their education.

Claim Two

In a teacher-centered-authoritative classroom, students are conditioned to perform and please the authority, which in this case is the teacher. Students' intrinsic motivation to perform tasks for their own benefit is replaced by "acting" to get reinforcement from the authority. Furthermore, the students' disconnection within their peers and teacher promotes performing/acting in the classroom.

[Ms. O assigns each student in a group. In their groups, students are to get in circle formation, choose a book, take turns reading it aloud, and come up with a group summary of their reading. There are five groups in all. Saheed is in a group with three female students. Tao is in a group of two male and three female students with herself included. Peter has the same gender operation as Tao.

The students were given a minute to get into their groups. Because of the desk arrangement, three groups were on the ground while the other two used tables and chairs. From Ms. O's angle in the front of the room, two of the groups on the ground were out of sight hidden away by the desks.

Ms. O is walking around making sure that the students are on task. It takes her five minutes to get every group settled and going and thereafter she stands in the front of the class. Saheed's group is one of the groups on the ground out of sight. In about a minute that Ms. O stopped walking around, Saheed starts to read aloud without his group. His group tells him to "stop reading like that." Saheed ignores them and yells out "finish" after he was done. One of the female student in his group shouts for him to "shut-up" and calls Saheed a girl.

All the while, Ms. O has two of her male students at her desk for punishment. She has them read aloud to her since they refused to listen and work in their groups. They do so accordingly. Peter's group continues to talk about other matters besides the book at hand. When Ms. O released the students by her desk, she becomes free to walk about. She immediately heads over to Saheed's group. Saheed and the female student stops arguing and start reading in their group. Ms. O even asks Saheed what the book is about and he responds, "parents." As Ms. O leaves Saheed's group to talk to Peter's group, Saheed and the female student starts to quietly argue again.]

From the very beginning, Saheed's group is doomed to falter as a group. In middle school, students work better in same gender groups or equal ratio of female and male students. Ms. O places Saheed in an all female group. His group wasted fifty minutes arguing rather than getting an education. Perhaps, Saheed was displaying a behavior from being the outcast of the all female group. It would be a fallacy to assume that Ms. O was unaware of the gender dynamics in Saheed's group. Nonetheless, her lack of consideration for Saheed reflects her disconnection with her students.

It is not, however, Ms. O whose the sole blame. All of the students in Saheed's group lacked consideration for each other. They had no investments towards their own and each other's education because they did not have interconnection within the group or the class. When Ms. O was not around to ensure that they stay on task, they do not have intrinsic motivation to carry out the task of reading for themselves. Saheed, like most of the students in the classroom, see no benefit in learning their lesson. They worry more about getting punished with Ms. O.

For example, the two male students that were punished had to read in front of Ms. O. it was only then, when they were in trouble with Ms. O that they "acted" to avoid being punished. When they went back into their groups, their behavior was not altered. This goes the same for Saheed's group. When Ms. O stepped into their group, they all performed for her. Saheed started listening to the female he was arguing with and the female student stopped inferring her opinion and got on task. This "acting" pleased Ms. O that she soon left their group. Yet,

their behavior transitioned back to the latter when they had no authority to perform to.

The groups are working harder when Ms. O is at their space. They become or pretend to be engaged with their readings. Ms. O has the power to motivate her students to work. They aim to please her and that is rewarding if she is available to each group. Conversely, the student's intrinsic motivation to learn diminishes as Ms. O's authority and presence fades. The students' lack of intrinsic motivation in learning is not the only aspect that calls for concern. Another consideration is their lack of motivation and respect towards their classmates.

Referring back to claim one, students are disconnected with each other because they are restrained from forming relationships with one another. As like the example of Ms. O stepping in when Saheed asked Toa for help, students rarely have the space to work with each other. The lack of communication and relations is reflective in the student's inability to work successfully in groups. The students are kept to work individually; therefore they have no prior play in working with each other. The female student telling Saheed to "shut-up" and Saheed not knowing what to do in working with female group members is indicative towards the flaw in authoritarian teaching method.

The students are conditioned to perform not only in doing work but also in working with each other. Saheed and the female student stopped arguing when Ms. O stepped into their circle. It was then that they were on task and learned about the book that they were reading. The two group members "acted' to get along only to have Ms. O leave their space. The minute that she left, they were back to being in natural position. The question thus far is to inquire what the students are being taught. They are learning to please the authority rather than understanding the benefits of actually learning. Their motivation to "want" to learn wilts and the motivation to "act' for authority takes precedence.

Claim Three

Students mimic the teacher's actions and interactions since the teacher models how to act in the classroom. Ms. O's authoritarian style attracts attention to herself, holds the power in the classroom, and disconnects her with the students. Thus, her teaching style motivates her students to act accordingly, wanting power over their peers since they rarely assert their opinions in the classroom.

[The student teacher, Ms. W, is trying to get a student on task. She repeatedly asks this student to do his work. She tells him, "Do you know that I expect you to work on the character list?" He responds, "Well, I expect you to get me a piece of paper."[3]]

For the reason that authoritarian teaching style is teacher-centered and promotes individualistic learning, students learn to impose their opinions without considering others. In this EL classroom, Ms. O is the authority. In this case, we see that Ms. W does not get the same respect as Ms. O. The student clearly does not "act" accordingly when asked to do the following task. Why might this be? If students aim to please authority, why does Ms. W have a harder time getting the students to do their work? The answer to this question lies within the first claim. Remember when Saheed asked Ms. O about the hotdog, she completely neglected his thought process and moved on. Here, the situation mimics how Ms. O deals with her students. The student teacher asks the student to do his work, and the student shuts the student teacher down without considering her emotions.

In fact, the student in this example is trying to gain the authority from the student teacher. Notice how he mimics the same words that the student teacher uses. The student does not respond in a respectful manner but commands her to "get [him] a piece of paper" as if he were the authority. Again, we must ask why do students rebel and act in this fashion? In this classroom, it is scarce for students to state their opinions or influence their curriculum. They are, in a way, unable to speak and express their feelings. This brings about frustration and tension in the classroom. At the very least, students are starting to rebuttal in passive aggressive ways such as challenging the next authority figure next to Ms. O. They also try to overthrow their peers to gain some sort of power and control in the classroom. [Tao is arguing with her group. She keeps saying, "na-uh. This is the boringest book ever." The next group over to Tao's group is also arguing. The group is targeting one female student telling her that she is "eighth grade, you should know how to read this." She starts to cry with her head down on the desk. Saheed's group is off task, and Peter continued to throw his pencil.]

In what seems to be a chaotic display of students misbehaving, the situation is actually inevitable and controlled. Each student in each group is trying to gain the authoritarian role since in group-work Ms. O cannot continuously assert her control. The students are challenging each other rather than working cooperatively in groups. The students even go as far as hurting their peer's feelings to get the feeling of power. Their intrinsic motivation to get the task done is lacking because their energy is focused in either asserting their power or defending their control. They also spend their energy in "acting" for the authority, which leaves the students barely any motivation to work by themselves.

Conclusions

There is hope in that students are trying to rebel against the oppression of power. They do so in a chaotic way, but the fact that they are trying to gain power for themselves is admirable. These EL students have to go through so much trying to balance the dualistic nature of abiding by the English language and their native tongue. Why not give them the freedom to speak in the classroom rather than take

3 Observation 6. November 18, 2006. Forth Period

this safe zone away from them? These students are working within the same level of language acquisition that naturally, the class should be inviting for them to practice their language speaking skills. The authoritarian teaching method may work in other classrooms such as college, but for now, these students just need engagement with literature and the English language to help them improve.

If this were my classroom, I would first incorporate a more open and diverse curriculum. My lesson plans would promote bilingualism. They would further promote embracing all of the rich culture present in the classroom. It is such a privilege to work with students from all background, and this I would not ignore. Second, I would encourage students to network within themselves. In order to be successful, they also need to learn how to cooperate with other people who are different from them.

Again, I stress building relationships. I want my students to become familiar with me. I will not hesitate to tell my students my own values of life. The students, however, do not need to know whom I am dating or the hobbies I'm into, but they should get a sense of what I've come to care for. In turn, I should connect with each individual student on this deeper level too. By the end of the first semester or trimester, I should be able to understand their individual beliefs and cultures as well. To achieve these relations with my students, my lesson plans need to incorporate aspects of self-searching in my assessment. Although students and teachers can connect on a superficial basis, I am striving for that deeper connection-a soul searching-knowing how I would think-how they would think kind of way. I don't know how realistic this goal may be, but I want to be on that level with my students where they would fully understand my non-verbal communication.

In addition to everything, my students need to learn self-responsibility in the classroom. One way to achieve that is to have a set agenda that is routines for students to do in the beginning of the class. Another way is to place responsibility on the students to tell me what assignments they are either missing or having trouble on. This will be hard, but conditioning students by being available whenever they need help is key. Being helpful outside of class time teaches students the importance of asking for help on their own time. As much effort as they are going to put in will be as much (and more) effort I will put out to make sure they achieve their goals.

My classroom will be an intimate classroom. I will learn my student's names and they will learn each other's as well. I link self-growth with students' cognitive development, therefore, the more the classroom caters to their self-growth, the more they are able to focus and learn from my lessons. Again, I want my students to succeed outside the classroom. My definition of success goes far beyond earning a living. I want my students, when they leave my classroom, to be worldly and thinking outside of themselves.

Ethnographic Interviews: Case #2

Similar to the teacher in the first case, I conducted and open ended ethnographic interview of the second teacher. The following is a selective transcription:

> LOEZA: What did you think I was trying to do with the anthropology course?
>
> MARIA: Well, it helped me in my (beginning teacher support) training. They asked us about the gender of your students, what is the background of your students, what is the class differences in your students. And it's just helpful to know the background. It's helpful for me to know who can't even provide a pencil. It comes down to that critical (level). It helps me understand my students. Everything I do, even like today, you will see that we'll work on an essay for students who have divorced parents. Because the novel that we're reading talks about a character whose parents got divorced and had a lot to do with his foundation and so we're writing something about that. A lot of my students come from divorced families and that's something that even I have to find out. So, the background is very important.
>
> LOEZA: So, if I asked you to visualize in a cultural sense your biggest cultural challenge, what would that be in relation to the kids you have this year?
>
> MARIA: Culturally speaking this classroom that you're about to observe is primarily not of minority students. There are some that are Chicano and Latino. There are some that are Afro-American but the majority of my students are not.
>
> LOEZA: Because I worked with you for a full semester and you submitted all kinds of work to me, I have a sense of you as having a critical perspective on race theory and the way race functions in this society. How do you see (that) other teachers at this school see that (issue) in relation to you?
>
> MARIA: You know, can I be really honest? (Is) That okay? I hope this doesn't offend any of the teachers here. I am a minority teacher here. I am a Filipino. I think a lot of my background served, especially because I was an immigrant, served, like, helps me understand everything. The teachers that work with me they know that they're Caucasian and they're very aware of the privilege that they have. For some reason, they're very open-minded and I can talk to them about these types of issues like the achievement gap, the cultural differences.

And surprisingly, they make lesson plans when we collaborate that are culturally rich as well. I don't know if the students can relate as much to them, however. Is that what you're asking?

LOEZA: In part, that's what I'm asking. I was at this school in 2002 and, although I have not looked at the data, the demographics of the school feel different.

MARIA: In what sense?

LOEZA: It was more white five years ago than now.

MARIA: You know what it is? It's the influx. They're starting to build low cost housing here. A lot more duplexes, a little more condo type houses and apartments. And there is a big influx from the bay area (referring to the San Francisco bay area). So from Oakland there are a couple of my friends who have moved to Dewey and Liberty (the Greater Sacramento area). There's just this influx because the bay area is so expensive. They come here and that's why it changed.

LOEZA: What did you think you did not get in your teacher preparation program that you think you should have gotten?

MARIA: Hmmm. That's a hard one. A lot of it had to do with my mentor teacher that I was paired with. But the class really did cover a lot of classroom management issues which was good. I think that I wasn't ready for the performance level differentiation. I'm still having an issue (with this). Like, a lot of my minority students, their performance level is ultimately as a majority lower than some of my other students who are Caucasian. Their intelligence level is way up there, or their performance level, sorry, I mean, is way up there. And so the problem that I have is that I don't know how to challenge those students that are way above while trying to pull up the students without leaving them behind the students that are performing really well. I'm still having issues with that.

LOEZA: Now, thinking back, why do you think those differences exist?

MARIA: Honestly, I work in the system of education where test scores (matter) and, depending on what a child does, it correlates with a grade. I think it has to do a lot with cultures too. A lot of cultures, their culture's behavior doesn't mean that they sit there for two hours and read whatever instruction is given to them. These things are different in the home. So when they come here, students have to change their mentality, the way they act in order to be successful here. Because I know that my students who cannot focus and sit down to do readings and all that stuff, if I do any games of activities that involves movement, that involve some sort of, I don't know, some type of response, or call out loud, they're the first to call out and participate. And they do so well. But the minute that I tell them to do an essay, they can't sit there for two hours and do it. That's where they are.

LOEZA: What did you think before you took the anthropology course?

MARIA: I thought that to be a fair teacher you had to be blind to culture, be blind to class because it was so important for me to treat my students equally. But now, and after that class, and now that I am teaching, I don't think like that at all. I'm a little more lenient to students that I know come from a difficult family background, who I know come in here and don't even have a backpack. Like I said, when I know this, I'll stand at the door and have a pencil ready and I pass it to that kid.

LOEZA: Beyond a pencil, is there anything else that you do?

MARIA: Yeah, I call parents all the time, especially parents who have single parent households because it's hard for them to check on their (children). And they don't have internet or whatever, like that kind of stuff. I call them at work and I make sure that they're on task. None of my kids are failing because I'm really anal. I'll go to the bus stop and go hunt a kid and bring them into my classroom before class and make them do homework. Stuff like that.

Triangulating Between Discourses: Changing the Way Student-Teachers See the World

Art serves as a perfect metaphor for the anthropology of education. "My biggest goal for my students as they get older is that art changes the way they see the world." This was Jennifer Graves's rejoinder when I asked her what she wanted her high school art students to take away from her class. As an art teacher, she was indeed referring to art but in many ways this is also the inherent goal in teaching the anthropology of education. Many future teachers come with an aesthetic and differential valuation of cultures. I also wish that my students, as a professor of the anthropology of education, leave my class

with a greater appreciation for the diversity of cultures since each culture provides direct evidence for multiple answers to similar problems. I also want the anthropology of education to "change the way they see the world." In the next section, I will discuss the relationship between teaching this course and aspects of teacher professional development. I will also discuss discourse elements between the student teacher's ethnographic research, interviews carried out during their first year as teachers and my own classroom observations in their respective classrooms.

Relationship Between Teaching and Learning the Anthropology of Education and Beginning Teacher Professional Development

Structural Considerations in Beginning Teaching vis-à-vis Substantive Issues.

A major tension in beginning teacher professional is what is known in teaching as classroom management. In a cultural sense, the expectation in U.S. schools is that teachers have full "control" of the behaviors that students display in the classroom. This basically means that most (if not all) students appear to be engaged in what, again, appears to be a teacher directed objectives. This is often referred to in the field as "being on task." Off-task behavior is to be shunned upon and should be avoided. There is evidence in each of the two ethnographies that future teachers are preoccupied with structural issues such as classroom management. The first teacher, Jennifer, for example, uses terms such as discordance, dissonance and congruence. Even in her own classroom, as a first year teacher, she mentions this when she says, "I tend to be somebody who has a lot of procedural and organizational kinds of things that help things stay calm and that helps people know where they should be and what they should be doing. Part of it is routine and they come to expect certain things from me." At a surface level, it could appear that both ethnographies are about structural aspects related to classroom management. At a deeper level, however, they are not, particularly when you juxtapose them with the teacher interviews.

There is evidence in both ethnographies and in the teacher interviews that the student-teachers continuously grapple and oscillate between the structural aspects of teaching and what I would call more substantive issues. In each of the ethnographies, at a surface level there is evidence that each student teacher is grappling with those structural issues. The structuring of classroom life is a central responsibility of all teachers in a cultural sense and each ethnographic case reflects this tension. In the first one, for example, Jennifer clearly reacts against her mentor teacher's rigidity in style while in the second ethnography Maria refers to it as an issue of motivation. Nevertheless, the core of each ethnography deals with more profound substantive issues. Using Jennifer's own words from her interview, she says that an aspect of ethnography has to do with "how to approach your classroom of students from the outset. Trying to come in without too many judgments about your students but then also doing some investigative legwork about who they are and where they're coming from even before they walk (into) your classroom."

Maria, the second case, also grapples with the structural aspects as a first year teacher while dwelling into those more profound substantive issues. As an English teacher, she uses a culturally diverse literacy canon. She struggles in her ethnography with issues of student-agency, power, performance and what in education would be called a teacher-centered curriculum. (Teacher centeredness alludes to a disproportionate focus during instruction on the teacher as oppose to the students.) Maria continues to struggle with these issues in her own classroom as a now first year teacher. She is fully cognizant of the consequences of a teacher-centered curriculum but also understands that the "culture of teaching and learning" requires that she appear in control of the learning environment. My sense is that this will continue to be a source of positive tension for her. Ethnographic Discourse, Educational Discourse and Ethnographic Stance.

As part of my research for this paper, I visited each of my former student- teachers' classrooms. They were now in their first year as full time teachers in their respective classrooms. Jennifer, the first case, is an art teacher working at two different high schools and Maria is a middle school English teacher. At a surface level, both teachers were primarily employing what I will call the discourse of education. They would refer in both their interviews and during my visits to their classrooms to topics such as lesson plans, lesson development, standards and lesson differentiation. These topics are well within the discourse of education and essential components of the culture of teaching. It is, however, the ethnographic stance that continues to be in evidence during their first year as beginning teachers.

Each teacher's ethnographic stance is displayed during their interview. Jennifer tells me that "you need to have a better understanding of who they are and where they're coming from so that you can connect your content better to their lives." Recall that this was a major source of ethnographic dissonance in Jennifer's own research. She called it "discordant" or "sending mixed messages." She then adds in her interview, "Sometimes I think it's just really listening (to) the way they talk, as much as what they say." It is in listening that we allow other cultures to penetrate us. Often, as teachers in K-12, there is little of this type of "listening," notwithstanding a culturally embedded type of listening.

Reflexivity in Teacher Ethnographic Research

One major critique that many student teachers have of their teacher preparation programs is that they are always reflecting. In fact, I recently recall that one of my current students wrote in one of his entry journals that he was actually required to complete five separate reflections in five out of

his seven classes. He was not disagreeing with the value of reflecting per se but whether this could not be somehow connected at the program level into fewer reflections. Student teachers do indeed see the value of reflecting but my sense is that they are looking for a "concrete answer" for this complex cultural practice that we call teaching. Although most teachers are reflective, only a few are reflexive. There is evidence that ethnographic research provides an initial springboard towards a reflective and reflexive teaching practice, one that includes the "teacher" and "student" in a mutually constitutive and dialectical understanding of each other. As first year teachers, both Jennifer and Maria have a reflexive ethnographic stance that began with their own ethnographic research and continued in their first year of teaching.

Based on the fieldwork, interviews and ethnographic research of student teachers for this paper, there is a sense that reflectivity is not enough but it is a starting point for teachers that will end up working with diverse and multilingual students. The two ethnographies began by asking the basic ethnographic question – What's going on here? A second major ethnographic issue becomes – What do I call it? This refers to the analytical language that one uses in understanding a given social situation. Again, Jennifer uses analytical terms such as discordant, mixed messages, and implied versus explicit objectives as she grapples with her ethnographic case. In turn, Maria uses terms such as teaching style, student agency and performatives as she discusses her situation. Reflecting is indeed a starting point for all individuals as they attempt to assimilate a new cultural complexity, particularly one that is as complex as a classroom full of adolescents.

If the promise of ethnographic research is to provide reflexive educators, Jennifer and Maria have far exceeded that pledge. They began by understanding the murky waters of ethnographic research. All along the way they continuously reflected and began to build a language of analysis in their field notes. They repeatedly went back to the field and came back with more questions. They acted, interacted and transacted with their participants.

Conclusion

Jennifer, the art teacher, tells me that once her high school students grow up, she would like for them to "know that there is power in being able to create something with your own hands. Most of them come in thinking that they can't do art." The art in ethnography has to do with going out in the field, taking notes and then trying to put them together into some type of ethnographic report. In this sense, both teacher- ethnographers did this well though they both continue to grapple with their current reality as they work through their first year in the classroom. Mostly, they continue their reflexive practices. Maria, for example, tells me that she finds it difficult to deal with the "performance level differentiation." This alludes to being able to teach your subject matter to students that have different levels of content knowledge. This is a very difficult issue to address even for "experienced" teachers. Yet, it is further evidence of the reflexive practices that are essential as teachers struggle to meet the learning needs in a multilingual, multicultural and global state. Ethnographic research can indeed provide a springboard into the development of reflective and reflexive educators.

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Changing Early Childhood Education Environments with Partnership, Quality Improvement, and Intensive Consultation: A Look at One Case

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To ensure that families get the childcare services they need, Sacramento County created the Quality Child Care Collaborative (QCCC). The QCCC is a partnership of several agencies focused on improving the quality of child care provided to children and their families. The QCCC practices can be worked into other childcare programs; other counties and states can benefit from emulating the QCCC's actions, collaboration, and aims.

The Quality Child Care Collaborative

Research has long suggested the importance of offering high quality care to children and their families (Burchinal, Peisner-Feinberg, Bryant & Clifford, 2000; Gormely, Gayner, Phillips & Dawson, 2005; Mashburn, Pianta, Hamre, Downer, Barbarin, Bryant, Burchinal, Early & Howes, 2008; Morrison, 2004; Newman & Newman, 2006). Providing young children the opportunity to establish and strengthen their early physical, cognitive, psychosocial, emotional, and language skills within a warm and stimulating environment is beneficial to children and paramount for later success. Thus, to ensure that families get the childcare services they need within the Sacramento County, the Quality Child Care Collaborative or QCCC was created.

The QCCC of Sacramento County is a partnership of several agencies all focused on improving the quality of the child care being provided to children and their families. Specifically, the main goal of the QCCC is to establish and maintain quality educational environments for children and families that receive child care in centers, family child care homes, and with exempt providers. Exempt providers are family members, friends, and neighbors who often have little to no training in how to provide quality care, but who are utilized by many families to provide child care. This partnership, funded by First Five Sacramento since 2004, began with four partners including Child Action Inc., the Sacramento County Office of Education, the Sacramento County Office of Mental Health, and WestEd. The QCCC has since flourished into a collaborative now including eleven partners that each add their own unique contribution and perspective to the collective effort by filling niches specific to the specialty of that partner. The focus of this article is to explain what the Quality Child Care Collaborative does and to show how their efforts have transformed educational environments of the child care settings into high quality settings and glean policy recommendations from their experiences. Please note that early childhood provider and early childhood teacher are used interchangeably throughout this article.

The Beginning

The Past, Present, and Future

In 2004, four agencies received initial funding from First Five Sacramento to create a comprehensive infrastructure to provide services to the Sacramento County Child Care community. First, Child Action, Inc., the lead agency in the collaborative, is the resource and referral agency for the Sacramento County. Their main duty is to manage the entire collaborative, evaluate the educational environments, and write quality improvement plans. Second, the Sacramento County Office of Education, known for their inclusive education efforts, contributed to the QCCC by offering services which focused on children with special needs. Next, the Sacramento County Office of Mental Health emphasized an interest in mental health and social/emotional development of the children in child care. This perspective allowed for mental health professionals to inform the collaborative of proper mental health practices to best serve the caregivers, the children, and their families. Finally, West Ed served as the research and service agency. WestEd's contribution to the

collaborative was a relationship-based model for promoting quality infant/toddler care. These first four agencies of the QCCC worked hard to give the collaboration its initial momentum.

With each partner in place, the QCCC created the "wheel of services", a diagram depicting each of the partners within the collaboration (Figure 1). This "wheel of services" focused on intensive consultation to child care providers concerning mental health and inclusion, and was used as a springboard for improving child care environments. Child Action, Inc. worked as the main agency facilitating and supporting the QCCC and county parents, while the two county offices formed the consultation team, and WestEd offered intensive training to care givers. All of the services provided were either established as best practices or as emerging best practices, therefore ensuring that high quality was obtained.

The Next Three Years

After two successful years, the QCCC received funding from First Five for another three years with additional partners. With a funding stipulation to expand services, the QCCC added more partners and additional services all with the intention of helping families in Sacramento County find quality educational environments in the child care setting. A special consideration was also given to families who do not speak English as a primary language, who have a child with a disability, and who have a child with a chronic physical and / or mental health condition.

The partners of the QCCC expanded to include the Los Rios Community College District, UC Davis Center for Human Services, Warm Line Family Resource Center, the County Office of Public Health, Sacramento State University, and the Child Abuse Prevention Council. Most of the partners provided trainings for the child care providers, however, each of the partners found areas that could improve the QCCC and the services offered. For example, Sacramento State assisted Child Action, Inc. with environmental assessments and giving practical experiences to service-learning students in child care centers throughout the county; the Los Rios Community College District offered a mentorship conference to the child care providers; and the consultation team also expanded to include a representative parent from the Warmline Family Resource Center.

Current Program

In addition to the aforementioned partners, today the QCCC has added Sacramento Enriches as a partner. Sacramento Enriches is a non-profit organization that utilizes best practices to build community. This organization assists the QCCC by creating a wider distribution network of parent outreach. Additionally, given the mandate by First Five to expand services, the QCCC has found other ways to keep growing. They reach out to families and providers who serve a number of children for whom English is not their first language, including those who speak Spanish, Russian, Chinese, and Hmong. They also provide outreach to providers who want to obtain their BA degree and aid family, friends, and neighbors who are exempt providers. As the QCCC continues to grow and expand, it is committed to offering focused, coherent, comprehensive, and integrated support services for child care providers and the families they serve.

The Future

The QCCC is in the throes of applying for another five years of funding from First Five. No additional partners are being added, but services are still being expanded. For instance, Sacramento County Office of Education has added school readiness to its QCCC goals. The wheel of services is being transformed to a pyramid (Figure 2) of services in order to reflect the tiered nature of the services and the focus on another best practices model for social and emotional development. This model of best practices comes from the Center on Social and Emotional Foundations for Early Learning (CSEFEL). CSEFEL is being adapted by the State of California and other states across the country as a best practice model for training providers and parents to enhance early social and emotional development and behavior. The base of the pyramid represents environmental interventions that are good for all children. The next two levels of the pyramid increase in intensity by focusing on children who need supplemental services. The highest level of the pyramid represents acute services offered to children who are most in need.

QCCC Structure and Activities

Overall, the QCCC utilizes an eclectic array of best practice models to provide services to child care providers/ teachers and parents. At the current time, the partners are: Child Action, Inc., Sacramento County Office of Education, Sacramento County Mental Health, WestEd, Sacramento County Public Health, Sacramento State University, Los Rios Community College District, UC Davis Center for Human Services, Warmline Family Resource Center, Child Abuse Prevention Council, and Sacramento Enriches. Child Action, Inc. still acts as the lead agency in assuring that all of the services are provided in a professional manner. As mentioned previously, the image of the "wheel of services" was used at first, but now a service pyramid is utilized to represent the tiered nature of the services. With the wheel, all of the partners and their services are contained on a segment of the wheel. On the pyramid, the services are represented by the nature of their intensity with general environment enhancing services as a foundation and intensive, consultative services at the top of the pyramid.

Services Provided

One of the central services provided by the QCCC is an incentive program for child care providers to obtain education

and meet licensing requirements related to obtaining a child development permit and beyond. For example, the Sacramento Comprehensive Approaches to Raising Educational Standards Program (CARES) Program and the QCCC offer workshops and seminars that teachers can attend to gain professional development credits. Furthermore, CARES offers monetary stipends for those involved in their program. This CARES program is geared for keeping teachers learning and rewarding them as they go.

Another major service is aiding child care providers as they develop and implement quality improvement plans by means of an initial environmental screening and a subsequent plan by a child development specialist. Additionally, the QCCC provides an interdisciplinary consultation team that provides on-going and intensive consultation to the providers with children that have special needs. These services help teachers to include children with special needs into their regular, everyday programs. Other services include helping families understand what quality child care is and helping them to obtain that care, presenting a number of trainings to parents and child care providers concerning issues such as observing and assessing young children, preventing child abuse, preventing the flu and other illnesses, and awareness of basic developmental milestones. Some of the trainings and other services are offered in languages other than English.

As mentioned before, the QCCC is a collaborative, the services are delivered in an organized and coordinated fashion with Child Action, Inc. managing all of them. The goal of all of these services is improving the quality of care and education that the children receive. These services help transform early childhood education classrooms through the development and implementation of quality improvement plans and the intensive consultation given by the consultation team. The quality improvement plans are based on assessments of the educational environment with the Harms and Clifford environmental rating scales. These assessment scales look at certain aspects of the environment including safety, health, and appropriate development. After these assessments are conducted, a member of the QCCC team at Child meets with the child care providers and together they create a quality improvement plan. Completing the steps of the improvement plan gives caregivers a chance to renovate and ameliorate the educational environment that they provide.

Not only do rating the classroom then devising and implementing a plan improve the educational environment, but the consultation team helps in other domains that aid the social, emotional, and behavioral development of children, especially those with special needs. The consultation team also helps to transform the educational environmental quality. Competency within the three previously mentioned developmental domains are closely related to cognitive competency in children from birth to five years old (Driessen, 2003) and impacts their educational trajectory for years to come. When QCCC has a child that they want to help, the team goes in to the childcare setting and observes how all of the children and teachers interact with a particular emphasis on observing that focal child. Subsequently, suggestions are made about how to transform the environment so that the focal child has more positive interactions with the other children and teachers, and ultimately establishes a better learning environment for all children in care. These suggestions are implemented and then the consultation team member returns to observe. More intensive changes are made if needed and occasionally, the consultation team member models interactions with the focal child and gives direct coaching or mentoring to the teachers on how to interact with the focal child.

Recipients of Services

The QCCC provides services to early childhood teachers of children aged birth to five years of age in Sacramento County. They offer services to child care centers, family child care homes, exempt providers, and parents. Exempt providers are family members, friends, and neighbors of the children in care who do not have a license to give care. A number of children are in these sorts of arrangements and the quality of the care they receive varies a great deal. Therefore, aid from the QCCC helps these venues that provide care for children to provide the best care possible no matter if the child is in a center or a home. Parents also receive services through the QCCC. Not only can parents receive assistance in Action, Inc. finding care for their children, parents are also shown how to identify quality care. Furthermore, parents receive additional assistance and support if their child has a special need.

Impact of the QCCC on the Educational Environments of the Service Recipients

It is evident that the QCCC believes in working with others to better the services offered to the educators, families, and children in the Sacramento County; their efforts certainly make a positive impact on the community In the first five years, the QCCC provided care to a number of centers, family child care homes, and parents. During the current period, additional centers, homes, exempt providers, and parents have received services. Furthermore, providing opportunities for teachers to advance their education, ultimately leading to higher quality care, is another way that the QCCC works in collaboration with other programs, such as the CARES, to improve educational environments. Offering classes and professional development as well as stipends to pursue higher degrees, helps educators to move up the Professional Matrix, a grid which specifies the amount of education, working hours, and ECE units necessary to advance in the field of ECE. The education and hours necessary for advancements through this Professional Matrix ultimately provides teachers with the necessary tools for classroom improvement.

Based on evaluation reports, the collaboration between the QCCC and other programs have led to several noticeable

increases in different areas within the early childhood education field. Specifically, in the 2008/2009 year, 343 participants applied for CARES stipends with 115 of those participants becoming qualified for moving to the next level of the Professional Matrix. Also, the amount of high quality accredited spaces that can serve children increased by 46 %. Additionally, of the participating family, friends, and neighbor providers taking part in the CARES program, 57.1% of these participants received a child care license and 42.9% moved closer toward receiving a child care license.

In addition to offering services to educators, the QCCC utilizes three environment rating systems to assess the educational environment of the classrooms: the Early Childhood Environment Rating Scale, Revised Edition (ECERS-R) used to assess children aged 2.5 to 5 years old; the Infant/Toddler Environment Rating Scale, Revised edition (ITERS-R) used to assess children birth to 2.5 years old; and the Family Child Care Environment Rating Scale, Revised Edition (FCCERS-R) used to asses children from birth through school age who attend in home child care programs. Scores on these scales range from 0, indicating poor care, to 7, meaning enhanced development and care is taking place. Each of the environmental scales use different subscales to rate the environment including Space and Furnishings, Personal Care Routines, Language or Listening and Talking, Activities, Interactions, Program Structure, and Parents, Providers, or Staff. After the child care centers are assessed, program managers are able to pinpoint where their programs are strongest and weakest, and begin implementing changes to better the services they provide. Furthermore, even if it takes time to make large improvements in the classroom based on these ratings, using these scales increase the overall awareness of what it takes to make a quality classroom. These ratings scales are great indicators of what educators need to do to improve their classrooms, and they serve a major role of comparing where a classroom rates before improvements are made and to how they rate once evaluated again later.

As the QCCC continues to work tirelessly to improve educational environments, their efforts have definitely made a difference. Both qualitative and quantitative data have shown an impact. Based on quantitative data which compared the 2007/2008 ECERS scores to the 2008/2009 scores, the data shows that on average 6 scores increased, 6 scores decreased, and 5 scores stayed the same or had no more than a .5 change. Additionally, considering the overall average scores during the 2008/2009 fiscal year, major gains were shown upon comparing the initial environmental rating assessment taken earlier in the year, and the later assessment. Specifically, 46 centers showed gains in their average ratings from 4.3 at the earlier assessment, to 5.3 during the later assessment. Furthermore, the 56 family child care centers showed an average gain of 4.1 at the initial assessment, to 5.2 during the later assessment. This data shows that the QCCC and its collaborators have aided in score increases and maintenance of quality. Despite these gains, the QCCC still strives for perfection, and is constantly adding more services and updating the best practices used to ensure that everyone's needs are met as these programs work toward improvement, and as the collaboration offers the best services it can.

Just as the quantitative data showed positive gains after working with the QCCC and its collaborators, the qualitative data shows that many caregivers value and think highly of the services provided, based on the feedback they offered. One child care provider explained that:

> "I received one-on-one counseling on what and how to handle the issues I had with my childcare such as information and tips on speech and language development and how to encourage more speaking. The OT helped me so much with supplies, training and support. I have been helped on ways to talk with parents about different disabilities."

In this case, the QCCC seemed to have helped boost this provider's confidence in helping parents while giving her both tangible and intangible means to improve the care she offers. Additionally, providers were quoted saying "I wish I had found out about these services years ago!" and "I value the care and compassion everyone has shown. Nothing feels any better than to have someone listen to your problems or concerns and then work with you to fix the problem."
Another provider explained her feelings about the QCCC saying:

> "Our field of ECE in general and we in particular feel very fortunate to have you as part of our support members. The ideal educational system should consist on this camaraderie and support as we feel from you to our students. Thank you!"

Thus, not only did she feel that her center was improved by the QCCC, but the Early Childhood Education field as a whole is bettered by the efforts made by the collaborative. These quotes are evidence that services provided by the QCCC were valuable to those receiving it. Giving providers the support they need not only benefits the provider, but trickles down adding quality to the center and improving the quality of the educational environments and the services children and families receive.

Policy Recommendations

The QCCC has been in existence now for seven and half years and has had some relative success as shown in the previous section. It has also been recognized as a model collaborative by the National Association for the Education of Young Children in its Young Children journal (Friedman, 2006). Therefore, there have been lessons learned and practices utilized that may be helpful for others as they engage in transforming environments for young learners.

One suggestion that can be utilized everywhere by organizations geared at improving educational environments

is to have an interdisciplinary intervention team. This team can consist of educators at various levels (early childhood, pre-service, and post degree), mental health professionals, educators that focus on children with special needs, parents, physical health professionals, child development specialists, and community representatives. It is important for all of these players to be at the table and to communicate with each other on a regular basis. Team members should be aware of the services and expertise that each member brings to the collaborative and be willing to hear everyone's perspectives, especially since all team members should have a common goal: better quality for our children. With this in mind, referrals to other team members as the need arrives should be common.

In order for a team and the child care providers to transform the educational environment of the children, time is needed for collaboration, conversation, and discussion. Regular meetings and more informal contact should occur quite frequently allowing for timely and consistent communication; the providers should have time scheduled daily, even if only for 15 or 20 minutes, to ruminate over and discuss how to improve the classroom. Each member of the team and the provider should be respected and expected to share their perspective and expertise.

Another suggestion is to support providers/teachers of the young children as they continue their formal education to a MA degree or even beyond. Education is integral in improving the teachers' skills, knowledge, and abilities and education works as catalysts for a positive change in the classroom. The employers of the early childhood teachers should assist with this process by providing flexible schedules, space for studying and learning, and monetary aid. Local governmental agencies and nonprofits or foundations should also provide support for the providers to continue their formal education. Furthermore, education allows for perspectives and professionalism to become more refined. This will also help others to see how important it is to educate young children and garner more respect for the field.

Beyond formal education, another suggestion for providers/teachers of young children is to continue their professional development by attending workshops and conferences as well as reading materials that contain current research and practices in the field. Employers and local government agencies should support and provide these efforts. At least four trainings, workshops, or conferences should be attended each year, and these trainings can cover an array of topics varying from marketing child care and best business practices to communicating with parents and building pre-literacy skills. Early childhood education teachers should also be exposed to advocacy methods in addition to the rudimentary duties such as educating children and ensuring that they are healthy, safe, cognitively stimulated, and happy.

Parents play such an important role in making sure their child receives quality education. They can also play a key role in transforming the educational environment of their children if that becomes necessary. Parents are not always aware of what a quality education is, nor are they always aware of the power that they have. Thus, another suggestion would be to inform parents about advocacy methods, the characteristics of quality early education, and avenues for communicating with the educators of their children. The interdisciplinary team of experts that work with providers should also work with parents and assist parents and providers in working together. It is imperative for the collaborative team of experts to communicate with, educate, and outreach to parents. Accordingly, experts, teachers, and parents in a young child's life should work together to transform the environment.

Funding is always a consideration when creating a collaborative interdisciplinary team. The QCCC is mainly funded by First Five Sacramento, a county-based agency funded by a state-level foundation, First Five California. However, each partner in the collaborative contributes a certain portion of their own funds to the effort. Additionally, with each new funding cycle, new services have to be offered to the providers. These types of funding mechanisms are recommended as a matter of policy to any organization or entity trying to establish an educational collaborative. The funding should be considerable and permanent or as permanent as possible, much like the funding for the Quality Child Care Collaborative. Ideally, governmental agencies and commercial businesses should also contribute to the funding through direct funds or in-kind gifts. Having such entities consider children and child care in everyday decisions and funding decisions is a welcome occurrence. The funding of such a collaborative should be considered long-term and incorporated into the every day fabric of the district, neighborhood, county, or geographic area.

Funding is incredibly important; so is the means of evaluating whether a program is performing as effectively as it should. How will the funders know that the collaborative is a success and is meeting its goals without tools of assessment? The Harms & Clifford standardized instruments are the hallmark in the field and they are generally available and appropriate. Some states may also have standardized instruments that measure educational environmental quality or child development milestones. For instance, California has the Desired Results Developmental Profile – Revised (DRDP-R,) The DRDP-R measures children's developmental milestones in the area of cognition, social and emotional development, language, gross and fine motor, and self-help skills. Additionally, formative assessment and evaluation can occur with each workshop through mixed method surveys. These surveys contain closed and open-ended questions.
Also, teachers can measure children's learning with natural and structured observation. Parents' knowledge, satisfaction, beliefs and perceptions can also be measured through mixed methods surveys and focus groups. Although surveying

parents is informative, the most important outcomes are the children's knowledge, skills, behaviors, and milestones. These should be assessed rigorously and thoroughly with standardized and non-standardized methods. In addition to the aforementioned methods of assessment, portfolios of the student's work can be gathered, pictures and videos can be taken (with requisite permission). All of these methods can be used to document the success of the endeavor, as documenting success is quite important.

The efforts of the QCCC to change educational environments do not go unnoticed. In the words of a provider the "QCCC made me feel professional and very important." As the QCCC continues to work and expand, its practices can be worked into other childcare programs, and the creation of a collaborative can be adopted by other counties and states hoping to improve the child care services offered to their communities. As QCCC aims to continuously improve, it will steadily move toward the ultimate goal: creating quality educational environments for all children in care in Sacramento County. All counties and states can benefit from emulating the QCCC's actions, collaboration, and aims.

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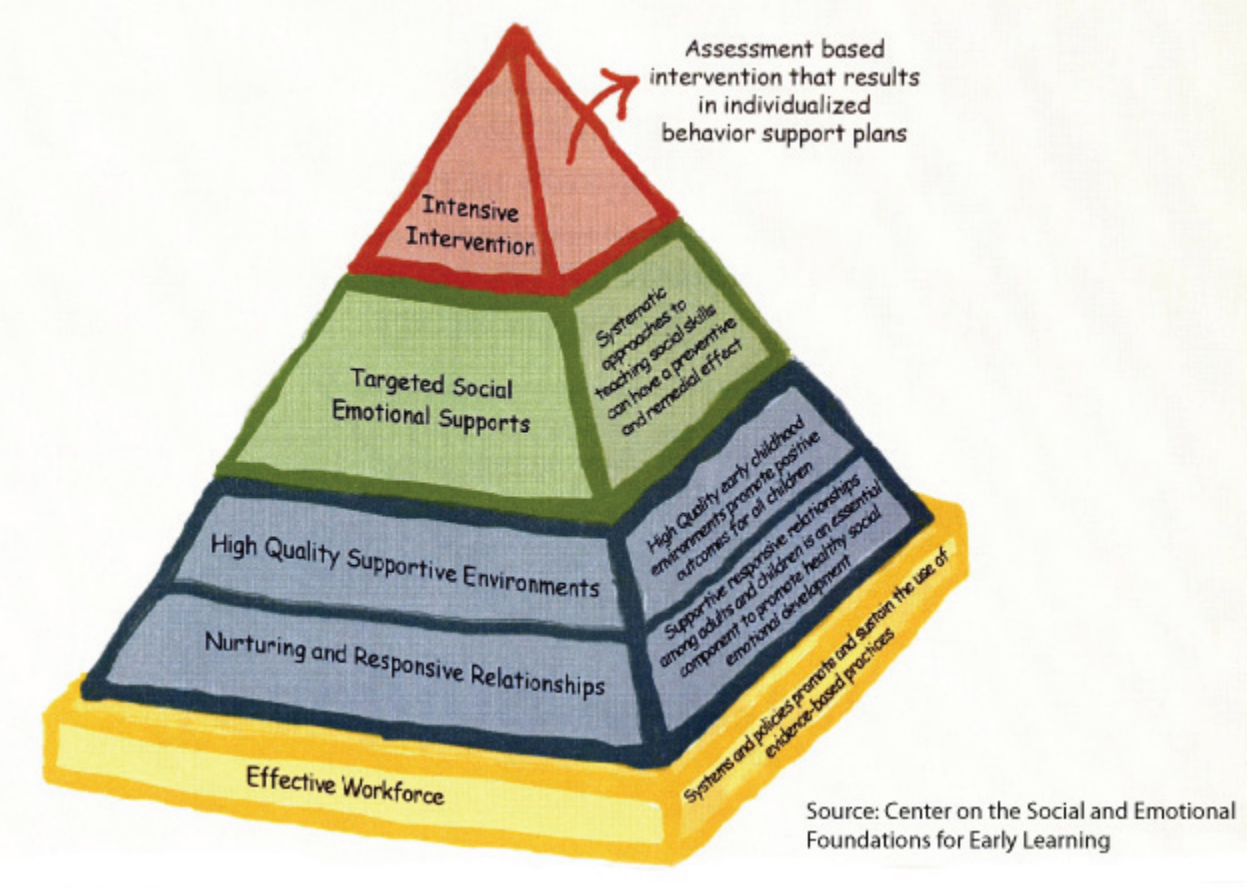
Appendix A

Quality Child Care

Source: Child Action, Inc.

Appendix B

Effective Care Practice



Hispanic Student Achievement: An Investigation of Various Factors and the Effects on Hispanic High School API scores in California

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The purpose of this study is to determine specific factors that influence changes in Hispanic API scores in California public high schools. The study's design examines various high school, student, and social factors that may be significantly correlated to Hispanic academic performance. The findings reveal that policy-makers and educational administrators must consider multi-faceted solutions in creating greater success in the Hispanic student population.

I. Executive Summary

Educational achievement is a main concern for school districts, administrators, and the educational system as a whole. Recently in California, increasing attention is being paid to school performance due to a growing and diversified student population. With a public education system ranking in the bottom half among all U.S. states, California must seek to improve the system and in turn increase students' chances for success in order to benefit the state's economy by supplying a better educated workforce. However, to facilitate such improvements the focus must shift towards the booming Hispanic student population. What factors significantly affect Hispanic students' educational achievement? Perhaps such factors directly relate to various student characteristics, social dynamics, or distinctive attributes of educational intuitions. This study involves the examination of California's public high schools (N = 995) centering on 2007 base Academic Performance Index (API) scores for Hispanic high school students as to assess such dynamics.

The study connects various factors to Hispanic academic performance. A regression analysis controlling for various factors, such as high school, student, and social inputs, as well as other factors such as charter status and county location, provides evidence that Hispanic academic performance is largely driven by high school and student inputs. There are significant negative relationships between the percent of English language learners at a high school and Hispanic API scores. More specifically, for a 10% increase in English language learners, Hispanic API scores are expected to decline by .02%. In addition, average class sizes in core academic courses and percent of full credentialed teachers are also found to have significant positive and negative effects on Hispanic academic performance, respectively. Results indicate that a 20% increase in class size is predicted to increase Hispanic API scores by .33%, while a 10% increase in full credentialed teachers is expected to result in a .40% decrease in Hispanic API scores. Parents, students, teachers, and the educational community at large in California must address these connections in order to better develop and prepare the Hispanic youth for future endeavors. Granted, focusing on improving these factors may prove to be difficult as in many instances administrators and educators do not have authority and control in such areas. Nevertheless, policy-makers and decision-makers must be attentive to such relationships when implementing educational strategies and reform policies.

II. Introduction

In California, all high school students undergo identical standardized testing in order to determine academic achievement for the school overall, as well as disaggregate subgroups, such as ethnic groups, socioeconomically disadvantaged students, and students with disabilities. The performance measure utilized is the Academic Performance Index (API). The API is the California Department of Education's primary indicator in determining the various factors that have significant relationships with academic performance and academic progress in the public school system. The policy, enacted under the Public Schools Accountability Act of 1999, established a manner in which to hold schools accountable in educating students. Administrators determine API scores based on the results of standardized tests, such as the California High School Exit Exam (CAHSEE), and score each school on a scale ranging between 200-1000, with a state-

wide performance target of 800. As an improvement measure, the strategy seeks to increase academic performance of students by incentivizing schools with monetary rewards and distinguished public awards in instances that schools meet the academic growth goals. Conversely, API scores also establish which schools must undergo interventions, such as funding cuts or sanctions (California Department of Education [CDE], 2009). Furthermore, State Superintendent of Public Instruction Jack O' Connell views the API as a manner for California "to develop, implement, and sustain a specific, ambitious plan that holds the State of California accountable for creating the conditions necessary for closing the achievement gap" (CDE, 2009). Thus, the state and public schools are aware of the achievement gap and are under significant pressure to improve the institution's overall API scores, as well as API scores for various subgroups. The following research seeks to answer a research question pertaining to a specific group of high school students. More specifically, the research investigates various factors that may be correlated (and statistically significant) with changes in the API scores of Hispanic high school students in California. Three categories of explanatory variables are identified: high school, student, and social inputs and are more thoroughly described in Section IV during the discussion regarding the theoretical model.

Over the past several decades, California experienced a surge in the number of Hispanic immigrants, which now represent a significant percentage of the state's population. Consequently, Hispanics also represent the largest ethnic group in the state's public school system. During the 1998-1999 academic year, 40.5 percent of the California public school student population was Hispanic (Cheng, 2001). Intuitively, in the instance that the Hispanic population continues to increase, this ethnic group will represent the majority of California's workforce. However, Hispanics are typically found to be socioeconomically disadvantaged and in turn experience low academic performance scores. In addition to low socioeconomic status, more than one-third of Hispanic students have a parent that has not received a high school diploma (Noguchi, 2008). In the 2006 base API year, Hispanic high school students scored approximately 150 points lower than white students and nearly 200 points lower than Asian students, with African American students as the only ethnic group attaining lower scores (CDE, 2008). Granted, such social inputs are difficult for schools to address as schools do not posses the authority to intervene in the home environments of students. However a recent article in the San Diego Union Tribune, suggests that the low academic achievement of Hispanics is a result of school inputs and is a "signal that they [do not] have the same opportunity to learn because they are disproportionately herded into decrepit schools" (Moran, 2007). Such academic shortcomings of the education system, regardless of the cause, may affect future employment and earnings for Hispanics (Cheng, 2001). Thus, one important consequence of the growing education gap, particularly for Hispanics, is a workforce skill gap that limits individuals' success and creates a significant percentage of the state's labor force that is unable to meet the future needs of California's employers. An inability to address the various issues contributing to the low academic performance of Hispanic students may also result in a lower quality of life for this ethnic group, which places them at a competitive disadvantage in comparison to other Californians. Therefore, for the purpose of this research it is imperative to assess the effects of various factors on Hispanic student achievement as measured by the API in order to identify both beneficial and problematic aspects of Hispanic students' personal and educational life as to determine possible improvement areas and effective strategies.

Figure 1 further illustrates the projected ethnic composition changes in California for between 2005 and 2025. Hispanics are forecasted to become the largest ethnic group in California, as well as the majority of the population by 2050 (PPIC, 2008).

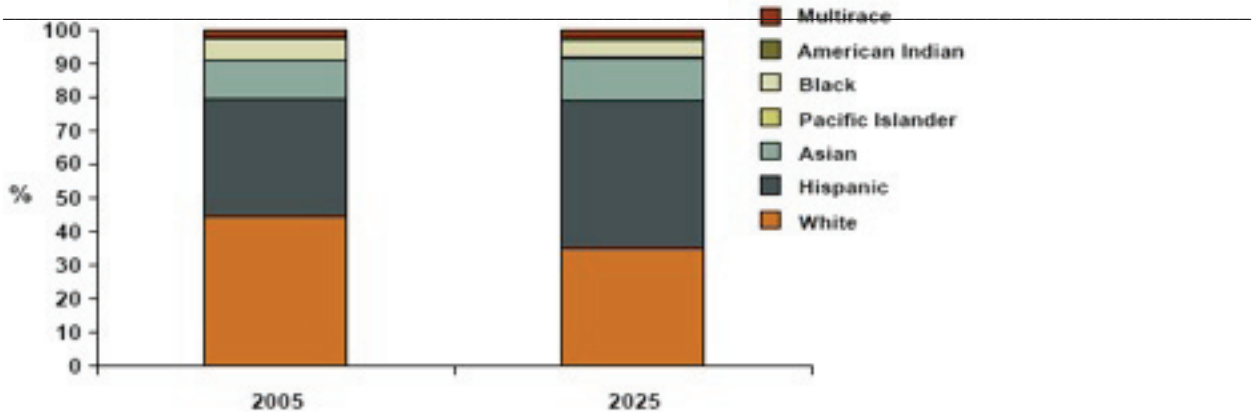
The following sections explore whether significant relationships exist between various school, student, and social inputs, and California public high school Hispanic API scores (holding all other variables constant). Section III provides a literature review which summarizes previous academic studies related to factors affecting student achievement. Section IV presents an overview of the regression model used in the analysis, including the general causal variables, descriptions for the dependent and explanatory variables, and the expected directions of each variable's effects. Section V offers details on the data sources used in the regression model, as well as descriptive statistics and the relationships between the variables. Section VI provides the regression results, which includes results from various functional forms; and possible errors in the analysis and the manners in which the errors are remedied. In the final section, section VII, the results are analyzed, giving specific attention to significant coefficients and elasticities. Also addressed are the implications of the findings on education policies and intervention strategies by school administrators in order to improve student achievement for Hispanic students, as well as suggestions for future research.

III. Literature Review

The results of various studies indicate that certain factors relate consistently to changes in API scores. However, some factors may be out of the educational system, as well as the individual school's control (i.e. – student and social factors). Therefore, it is important to examine the type of relationship between the variables in order to assess whether public policy can in fact assist in alleviating the issues surrounding API scores. The following review summarizes research that examines various factors' effects on schools' API scores, specifically describing the purpose of the research, methods,

Figure 1

Comparison of California's Ethnic Composition: 2005 and Projected Totals for 2025



and results. The majority of the previous research assesses three general types of factors affecting student achievement: those within school control, those within school district control, and those beyond educational administrators' control. Recognizing these three different categories allows for a specific understanding of how various inputs are related to educational performance measures, such API scores. Additionally, a table is included in Appendix A in order to further clarify researcher venues, as well as the methods and findings of the following studies.

Variables within School Control

Teacher Credentials and School Calendars' Effects on API scores

By categorizing the independent variables in three manners (i.e. – (1) socioeconomic background, (2) teachers' credentials, experience, and education; and (3) school characteristics), researchers may more specifically illustrate the different effects between factors that are within and beyond the educational system's control. Powers (2003) examined API scores for elementary school students in the two largest school districts in California, Los Angeles and San Diego Unified in this manner. The representative sample populations include 96.5% of elementary schools in Los Angeles and 95% in San Diego (Powers, 2003). The analysis utilized base data for API scores from the 1998-1999 school-year and compared it to the 2000-2001 school-year within and across each district. For the explanatory variables, the researcher created individual models according to different themes. The results of the regression analysis within each district suggest that student socioeconomic background variables, such as percentage of students qualifying for reduced-price or free lunches and percentage of English-learners, explain approximately 75% of the variability in API scores, are negatively correlated, and more importantly statistically significant (Powers, 2003). More specifically, during 1999 in Los Angeles Unified, a one percent increase in students participating in reduced price or free lunches and in the percentage of English language learners results in a decrease of 3.15 percent and .043 percent in base API scores respectively. In 2001, the results are similar with a one percent increase in such factors resulting in decrease of 2.52 percent and .30 percent in base API scores respectively. Furthermore, during 1999, in San Diego Unified a one percent increase in students participating in reduced price or free lunches and in the percentage of English language learners results in 2.52 and .30 percent corresponding decrease in base API scores. In 2001, the magnitude of the effects remains the same for the socioeconomically disadvantage measure, while a one percent increase in English language learners results in a higher percent reduction in API scores (1.06 percent).

Moreover in Los Angeles, results indicate a negative correlation between the percentage of teachers possessing emergency credentials and API scores, while in San Diego there exists a positive correlation. The regression results in 2001 for Los Angeles indicate that a one percent increase in teachers possessing full credentials results in a 1.63 percent decrease in base API scores. Conversely for 2001, in San Diego a one percent increase in teachers possessing emergency credentials results in a 7.40 percent increase in base API scores. Such a relationship is contrary to conventional thought and brings into question the importance of teachers' credentials in influencing academic performance. In regards to school characteristics, traditional schools perform better than schools with variations on year-round calendars in both districts. It is important to note that when adding the school characteristics model to the San Diego schools' regression the correlation between teachers' credentials and API scores becomes positive, likely due to the skewed number of schools

in San Diego operating on such a calendar as there are only two. Powers' study provides evidence that factors within a school's control, such as teacher and school characteristics, may affect API scores. However, the researchers also emphasize that when considering education policy, it is dually important to consider the strong correlations between student characteristics and API scores as this suggests some factors may be beyond the schools' control.

Charter versus Non-Charter Schools

Additional studies examining school characteristics assess such topics as whether the type of school (i.e. - charter or non-charter school) significantly affects API scores. Slovacek, Kunnan, & Kim (2002) examine the differences in how charter and non-charter schools in California are serving low- socioeconomic status students based on variances in API scores. Researchers analyzed API data for all California schools, as well as approximately 100 other variables, as provided by the California Department of Education for the 1999, 2000, and 2001 school years. In addition, data from California Network of Educational Charter's database was included as it provides more specific information on charter schools. Researchers focused on high-poverty schools where 50% or more of students were eligible to receive free or reduced cost lunches. The initial mean comparison between high-poverty charter and non-charter schools from 1999 to 2001 illustrates that the percent growth in API scores for charter schools (67 points) is higher than non-charter schools (64.2 points). Furthermore, when conducting a similar comparison, but solely including those schools that serve 75% of more high-poverty students, charter schools still show a larger growth in API scores (74.3 points as opposed to 68.2 points) (Slovacek et al, 2002).

Researchers also assessed the following factors when considering differences between charter and non-charter schools: percentages of English language learners, students participating in lunch programs, and teachers with full credentials. These variables create a strong predictive model for explaining 2001 API scores with an R = .847 and a variance of 72%. Researchers also assessed the following factors specifically for charter schools and once again found a strong predictive model with an R = .81 and a variance of 64% (Slovacek et al, 2002). The regressions indicate (for both predicting API scores for all California schools and also for solely California charter schools) that as the percentages of English language learners increases, a school's API score decreases. More specifically, a ten percent increase in the percentage of English language learners results in a 5.6 percent decrease in base API scores. The same relationship is true with the percentage of students participating in lunch programs as results indicate that a ten percent increase in the percentage of students participating in reduced price or free lunch programs is associated with a 26.5 percent decrease in base API scores. Conversely, a ten percent increase in the percentage of teachers with full credentials results in a 10.6 percent increase in base API scores suggesting that teachers with full credentials have a positive relationship with a school's API score. Future studies should continue to assess charter schools by including variables more specific to such schools, such as funding sources and educational curriculum.

Foreign Language Curriculum and the Effects on API Scores

Additional exploration concerning school characteristics has led to the examination of foreign language education and such programs' effects on academic performance. Sung, Padilla, & Silva (2006) examined foreign language programs at 200 public high schools in California. A random sample of schools from 161 school districts received a survey questionnaire containing questions on various aspects of the foreign language offerings and programs, as well as background information on foreign language teachers. The regression concerning enrollment in foreign language classes and API scores, while controlling for the number of students in free or reduced lunch programs and the percentage of English- learners, yielded a positive and statistically significant correlation ($r = .43$, $p < .0001$) (Sung, et al, 2006). Thus, as the percent of students enrolled in foreign language classes increases, API scores increase.

Researchers suggest that as the role of foreign language education may serve as a manner in which to minimize the achievement gap between high-performing and low-performing schools, consideration for the socioeconomic status of individual students in order to determine if high enrollment in foreign language education is feasible as well as necessary. Schools with high populations of low- income students will likely not have high participation in foreign language programs as low performing schools do not have a large percentage of graduates attending colleges, which require the completion of foreign language courses. Therefore, one may conclude that variables beyond school control indirectly govern those within school control (i.e. – socioeconomic status effects on whether a student finds programs offered necessary). However, in certain instances individual public schools may not influence the decision-making process on such issues such as school district size and personnel. In these cases, the responsibility of making the respected changes in order to improve student achievement may fall on school district administrators.

Variables within School District Control

The Effects of School District Size on API Scores

Aside from decision-making at the individual school level, decisions made by school districts may also affect schools' API scores. For example, in California one can find various school district sizes, some of which are responsible for educating over 40,000 students and are possibly forced to spread educational resources thin (Driscoll, et. al, 2003). A study using 1999 elementary, middle-school, and high-school level API data

provided by the California Department of Education (Driscoll, et. al, 2003) examines the relationship between district size, measured by the number of students enrolled in a district, and student performance. Upon running separate regressions for each school level, researchers concluded that district size is negatively correlated and statistically significant at a 1% error level for elementary and middle-schools (Discoll, et. al, 2003). More specifically results indicate that for a one percent increase in district size, there is a 5.27 percent decrease in base API scores for elementary schools, a 4.00 percent decrease in base API scores for middles schools, and a 1.42 percent decrease in base API scores for high schools. Therefore, such results lend support to the argument that school district size plays an important role in educational program quality.

Correlations between School Personnel and API Scores

Researchers also suggest that personnel services at public schools may affect student achievement, particularly the number of school counselors and school psychologists. School counselors play a role in addressing students' academic development and career exploration, while school psychologists intervene and assess students in the instance that certain events occur (Goodman & Young, 2006). A recent study conducted by Goodman and Young (2006) assesses a randomly chosen sample of 150 out of 352 public school districts from a Pacific coast state in order to determine if the number of school counselors and the number of school psychologists in a school district affected the district's composite API scores, of which the authors wrongly do not specify a year. While testing the main independent variable and controlling for socioeconomic status, researchers developed a model that explained 28% of the variance in student achievement ($a = .05$). In addition, the results indicate that a one percent increase in the enrollment of socioeconomically disadvantaged students is associated with a 1.01 percent decrease in base API scores. Furthermore, the regression yielded results that indicate that the number of school psychologists has a significant positive effect on school districts' API scores ($p < .05$), while the number of school counselors is positive, yet insignificant ($p > .05$). More specifically, the regression results illustrate that a one unit increase in the number of school psychologists employed in the school district results is a statistically significant .69 percent increase in base API scores, while a one unit increase in the number of school counselors employed in the school district only results in a .18 percent increase in base API scores, but this effect is found to be insignificant (Goodman & Young, 2006). Goodman and Young's study suggests that administrators may choose to shift the focus from individual students to professionals within school settings and evaluate the various programs and interactions such individuals have with students. Additionally, future studies may seek to examine individual schools, as well as types of schools (i.e. – elementary, high school), as the unit of analysis in order to obtain a more specific assessment of the relationship between individual school factors, school professionals, and API scores. Nevertheless researchers and administrators are limited in their sphere of influence and decision- making capabilities in regards to improving student performance as factors outside these individuals' control are also recognized as having significant effects on student achievement.

Variables beyond Educational Administrators' Control
The Effects of Race and Ethnicity

Although researchers identify various factors associated with school characteristics, factors, such as race and socioeconomic status, exist that cannot be altered by policy-makers and educational administrators. For example, Baker et al. (2000) examine race and ethnicity in aggregate and disaggregate classifications to determine if there is an effect on math and reading performance measures. The study randomly sampled 14,596 eighth grade students from stratified samples used in the National Educational Longitudinal Study of 1988 (NELS '88).

One issue that arises in using the NELS '88 data-set is that the sample population of racial and ethnic aggregate and disaggregate groups (i.e. – White, Black, Asian, Hispanic, and Native American) are not randomly and appropriately distributed across schools, leading to difficulties in assessing whether affects on academic performance are a result of race/ethnicity, groups effects, etc.

Researchers used two sets of regression analysis to compare academic achievement differences. The first analysis compared such differences among the five aggregate groups in math and reading while controlling for socioeconomic status and language proficiency. Researchers found the performance differences to be statistically significant at the $p<.01$ level, with Asian and White students outperforming the other groups, and observed the socioeconomic affects as strong and positive. In regards to math performance, the regression results indicate significant performance percentage decreases in scores for blacks (6.78), Native Americans (7.10), and Hispanics (3.85). Similar effects resulted in reading performance with a 3.86 percent performance decrease for black students, a 5.13 percent performance decrease for Native Americans, and a 2.01 percent performance decrease for Hispanics.

The second analysis specifically examined disaggregated subgroups in the Hispanic and Asian classifications to determine if performance differences are significant amongst subgroups and to what degree. For Hispanics no significant differences exist in regards to reading performance; however, for math, Cuban students outperform Mexican and Puerto Rican students ($p<.01$). In the instance that a student is Puerto Rican, it is likely that their math performance results are 3.12 percent lower than other Hispanics. While if a student is Cuban, their math performance scores are 8.31 percent above their Hispanic counterparts. Conversely, for Asians, a significant

find indicates that Chinese students perform high in math, but perform lower than Filipino students in reading (Baker, 2000). The regression results indicate if a student is Filipino, their reading performance increases by 3.27 percent. Additionally, researchers indicate statistical evidence suggesting that language proficiency plays a role in performance differences among subgroups, while socioeconomic status does not.

This study suggests that schools may need to more specifically target ethnic groups and not aggregate race classifications. However, future studies must measure additional variables falling under student characteristics as 90% of the variance in academic achievement remained unexplained by this study (Baker, 2000). Additional variables may include generational status, gender, and reason for migration to the United States. Nevertheless, the evidence provides a rationale for tailoring academic interventions according to race and ethnicity.

Various Personal Factors and API Scores

Goe (2002) examines various variables affecting student API scores by using data from 6,387 California schools for the 1999-2000 school-year from the California Department of Education. A regression analysis indicated that multiple factors negatively correlate with API scores, such as percentage of students qualifying for free or reduced price lunches, the percentage of Hispanic students, the percentage of parents without a high school diploma, and the percentage of emergency permit teachers (Goe, 2002). More specifically, a one percent increase in students qualifying for free or reduced price lunches is associated with a 1.47 percent decrease in base API scores. Similar decreases in API scores result from a one percent increase in the percent of Hispanic students, which is associated with a .91 percent decrease in base API scores, as well as a one percent increase in the percentage of parents without a high school diploma, which results in a 1.18 percent decrease in base API scores. Lastly researchers note that a one percent increase in the percent of emergency permit teachers is associated with a .62 percent decrease in base API scores. Conversely, a positive correlation exists between the percentage of parents that attended graduate school and API scores, where a one percent increase in the percentage of parents that attended graduate school is associated with a 2.01 percent increase in base API scores. The regression also yields an adjusted R-squared suggesting that the included and statistically significant variables (mentioned above) explain a majority of the variation in test scores, providing support that many factors associated with student performance (i.e. – socioeconomic and parent demographic factors) are beyond schools' control (Goe, 2002).

Key Findings from the Literature

Evidence from the studies suggest that the majority of factors affecting students' academic achievement as reported by API scores are beyond the control of schools' and policy makers as the factors deal with personal student characteristics. However, one must note that the studies include causal-comparative variables as the research examines changes in API scores based past "causes" (i.e. – parents' education) and thus are more prone to error if researchers have not included all possible explanatory variables. This literature review mainly focuses on studies examining student achievement within California schools. However as more research focuses on issues within the public school system and academic achievement, researchers may seek to focus on such factors as policy and curriculum differences between states in order to determine if the state's system makes a difference in educational attainment. In the instance that studies in such areas yield significant results, perhaps alterations to state's educational policies are possible and nationwide changes are necessary.

The results of the previous studies indicate that student and social factors consistently influence student achievement. For example, socioeconomically disadvantaged students, students with less educated parents, as well as minorities and English-language learners demonstrate lower student achievement. In addition, previous studies indicate school input influences, particularly in regards to the percent of fully credentialed teachers. As the following regression model focuses on different factors' effects on individual California high schools' Hispanic API scores, it is imperative to include multiple variables from the various inputs addressed in previous research in order to develop a robust model. In addition, the regression model used will not simply mirror the previous studies, but rather expand on preceding models by controlling for such inputs, such as the California county in which the high school is located, the percent of students participating in various education programs (i.e. – Gifted and Talented education programs, migrant education programs), whether the high school is a charter school, and if the institution operates on a year-round academic calendar.

IV. Regression Model

This section provides a detailed explanation of the regression model used as the basis for this analysis and includes descriptions of the dependent variable, the broad explanatory categories, the specific explanatory variables in each category, and the anticipated relationships between the explanatory variables and the dependent variable. In addition, rationales are provided for the selection of each variable.

The regression analysis is formatted after the classical regression model, also known as Original Least Squares (OLS). OLS regression is the most common regression estimation technique as the method is easy to use and minimizes residuals, which are the differences between the observed variable coefficient and the estimated regression line. The minimization of the residuals assists with the theoretical basis for the regression equation as researchers prefer for the estimated regression equation to be as near as possible

to the observed data (Studenmund, 2006). Furthermore, the research uses the OLS regression technique in an attempt to explain the variation in the dependent variable, 2007 California high school Hispanic API scores, for the chosen sample of California public high schools as correlated to the explanatory variables.

Dependent Variable

The dependent variable in this regression model is 2007 California high school Hispanic Academic Performance Index (API) scores as it is the main measure of academic performance in the state. Education in California is major concern for education administrators. However, the motivation behind choosing a dependent variable that specifically centers on Hispanics is that the education of this ethnic group is a growing concern in California, particularly for those Hispanic students who are English language learners and are of low socioeconomic status, as Hispanics are becoming a majority of the state's student population. In the instance that the regression research can identify significant relationships between variables that "explain" decreases (and increases) in Hispanic high school students' API scores, perhaps improvements may be made in the public school system to better educate this group of students in order to increase the high school API scores and more importantly produce a better educated workforce.

Sample

The sample frame is also an important consideration in the research design, as the number of observations included in the sample total affects the degrees of freedom and in turn the strength of the analysis. The sample population for this analysis is 995 California public high schools that reported Hispanic API scores for the 2007 academic school year. Although the total number of public high schools in California exceeds two thousand schools, not all institutions may have significant Hispanic student populations and therefore are not required to report this statistic. The current requirements for reporting subgroup API scores is a numerically significant population of either 100+ students enrolled on the first day of testing or for smaller schools, 50+ students enrolled on the first day of testing who make up a least 15 percent of the total student population. These reporting guidelines may demonstrate limitations in the assessment of the effects of various factors on Hispanic API scores in California public high schools as not all institutions may have a significant Hispanic student population. It is also important to note that the sample population chosen excludes those California public high schools that follow the Alternative Schools Accountability Model (ASAM), those that are formatted for special education, as well as high schools that are a combination of ASAM and special education.

Theoretical Model

The theoretical model for the regression analysis focuses on factors concerned with various social characteristics, student characteristics, and school characteristics that may affect API scores. More specifically, the research question the regression analysis is seeking to answer is: What factors are correlated (and statistically significant) with changes in the API scores of Hispanic high school students in California? The dependent variable chosen is 2007 California high school Hispanic API scores, which is related to the research question in that California high school Hispanic API scores is the specific measurement the study is examining in order to determine factors affecting academic achievement for Hispanic high school students in California. Thus, the research seeks to determine if a correlation exists between increases and decreases in California Hispanic high school API scores and various factors. The potential link between the identified factors and California Hispanic public high school API scores is expressed in the following general form:

- Hispanic High School Student Achievement = f (high school inputs, student inputs, social inputs, other control variables)

where (expected effects indicated in parentheses):

- Hispanic High School Student Achievement = f [2007 Base Hispanic API score for California public high schools)
- High School Inputs = f [enrollment (?), % of teachers with full credentials (+), average class size for core academic courses (-), % students excused from testing by parents (-), % students tested (+)]
- Student Inputs = f [% African American (-), % American Indian (-), % Asian (+), % Filipino (-), % Hispanic (+), % Pacific Islander (-), % English-Language Learners (-), % Students with Disabilities (-), % Socioeconomically Disadvantaged Students (-), % Students in Gifted and Talented Education Programs (+), % Students in Migrant Education Programs (+), % Reclassified Fluent-English-Proficient Students (+)]
- Social Inputs = f [% Students on free/reduced price lunch programs (-), Parent Education: % Not High School Graduate (-), Parent Education: % High School Graduate (-), Parent Education: % Some College (+), Parent Education: % College Graduate (+), Parent Education: % Graduate School (+), Average Parent Education (+)]
- Other Control Variables = f [year round status (?), charter status (?), school size status (?),
  county status (?)]

Rationale for Anticipated Effects

Hypotheses regarding the specific contributing factors within the broad general causes (that may have an effect on Hispanic high school student achievement (i.e. – A = high school inputs, B = student inputs, C = social inputs) were developed before conducting the regression research. The expected direction of these effects is indicated in parentheses in the above functional equation, where a "+" sign signifies a positive effect, a "-" sign signifies a negative effect, and a "?" sign signifies that the effect of the explanatory variable on the dependent variable is unknown. Conventional wisdom suggests that variables associated with lower socioeconomic status, which generally has a negative relationship with academic achievement, are probably also negatively associated to academic achievement and in turn base API scores. The following provides a detailed description of the variables and justification for their inclusion.

High School Inputs

Specific factors included under the broad category of high school inputs describe particular school characteristics. Average class size for core academic courses is assumed to have a negative effect as class sizes increase it becomes more difficult for students to effectively learn as there are more distractions and students may be less attentive and in turn have low student achievement. The variable concerning the percentage of teachers with full credentials is hypothesized to have a positive relationship with Hispanic high school students' API scores as the more teachers that have gone through a full- credential program; the more likely schools will have higher API scores due to more satisfactory and challenging curriculums. The original data set also includes a variable for the percentage of teachers with emergency credentials. However, including this variable in addition to the variable for teachers with full credentials may skew the results as the variables may cause multicollinearity. The percentage of students excused from API testing by parents is speculated to have a negative effect on Hispanic API scores as the less students present during testing, the lower the base to calculate the average API score across all Hispanic students at the specific high school. Conversely, the percentage of students tested is assumed to have a positive effect on Hispanic high school students' API scores as the more students that participate in testing the more individual scores are able to be included in the total number of API scores possibly increasing the overall average. The final variable included in the high school input category is enrollment as the high schools in the sample population vary in size. The potential relationship of enrollment and Hispanic student achievement is unknown.

Student Inputs

The broad category of student inputs describes student population demographics and groups. For example, the percentage of ESL students is chosen as a specific variable under student inputs and is believed to have a negative correlation with the dependent variable as students that are not proficient in the English language will likely lower API scores due to possible decreased learning opportunities and in turn increased difficulties in understanding standardized tests. A similar hypothesis is used in predicting the effects of the percentage of students with disabilities variable. The percentage of white and Asian students at the school is also examined as it is hypothesized that Hispanics attending high schools with more white and Asian students will perform better due to desegregated learning and a more challenging environment. Furthermore, it is assumed that Hispanics attending high school with a high percentage of fellow Hispanic students will perform better on tests that affect API scores due to a more welcoming and comfortable learning environment in which Hispanic students are not outcasts. Thus, a positive correlation is predicted for the percentage of Hispanic student variable. Conversely, it is hypothesized that percentages of African American, American Indian, Filipino, and Pacific Islander students will have negative effects on Hispanic API scores as these ethnic groups are historically low academic performers and may adversely affect Hispanic students' learning environments and lack positive educational influence. Although the last variable may be included under social factors, the percentage of socioeconomically disadvantaged students will be assessed under student characteristics as the data set includes the variable in relation to the school's demographics. It is believed that this variable will have a negative correlation with the dependent variable as it is hypothesized that as the percentage of socioeconomically disadvantaged students decreases Hispanic high school students' API scores will improve. Such a negative correlation may be due to the more income and occupational prestige a student's family has, the more likely it is that parents' may provide students with the necessary learning tools and environment outside of school.

Social Inputs

The final broad explanatory category includes social factors. A social factor provided by the API data set is average parent education level. This variable is believed to be crucial to Hispanic high school students' API scores as this student population may consist of a high number of first generation students. For parents that have graduated from high school and/or continued on with higher education, it is likely that these individuals encourage their children to perform well in school and believe education is important. Thus, it is hypothesized that as parents' education level increases as will the high school's Hispanic API scores. More detailed variables for parent education (i.e. – percentage of non-high school graduates, percentage high school graduates, percentage some college, percentage college graduates, and percentage graduate school) are included and measured as well. The same

hypothesis holds true for these variables in that as parents achieve an education level of "some college" and above, a positive relationship is assumed with Hispanic high school students' API scores. The final social input included is the percentage of students participating in free or reduced price lunch programs. Similar to the socioeconomic disadvantaged student input variable, this variable is likely to have a negative effect on Hispanic high school API scores in that students who participate in such programs are likely to be of lower socioeconomic status, which in turn may suggest a less conducive home environment for academic achievement.

Other Control Variables

Other control variables (i.e. – year round status, charter status, school size status, and county status) are also included in the analysis and hypothesized to have unknown effects on the dependent variable. For example, the year-round dummy variable (coded 1 in the instance that the high school is year-round and coded 0 otherwise) may be hypothesized that if the high school is year-round, students will experience less of a decrease in achievement scores as schools eliminate the three-month summer break and provide students with a more consistent academic schedule. Conversely, non-year round high schools may also have a positive effect on API scores as it may be beneficial to Hispanic student achievement for students to have a longer vacation period during the academic year. Such a break period may allow students to return to an educational setting more rejuvenated leading to higher attentiveness and in turn higher test scores.

V. Data

In order to effectively interpret the results of the regression analysis, it is necessary to thoroughly explain the explanatory variables used in the model. Thus, this section provides general clarifications of the included variables. Additional information may also be found in the series of charts illustrating the data sources for the variables, as well as descriptive statistics and the correlation coefficients between each of the variables.

Explanatory Variables

Explanatory variables are divided into three separate input categories: school, student, and social inputs. The category concerning school factors includes variables such as total enrollment, percentage of teachers possessing full credentials, average class size for core academic courses, percentages of students excused from testing by parents, and percentage of students tested. For student and social factors, the included explanatory variables are used as control variables in the majority of previous research and reflect major factors considered to have significant relationships to student achievement. Variables such ethnic background, stated as percentage of the student population included in each ethnic group, the percentage of students participating in various education programs offered at the high school, the percentage of socioeconomically disadvantage students, percentage of English-learners, and percentage of students with disabilities are included in the student input category. For social characteristics, the factors controlled for are percentage of students participating in free and reduced price lunch programs and an aggregate measure of parent education expressed as a value on a 1 to 5 scale. Disaggregate measures of parent education groups (i.e. – not high school graduate, high school graduate, etc.) are also included in order to further assess the specific effects of such groups on Hispanic high school student achievement. Additional controls, such as dummy counties variables, are included in order to draw comparisons amongst counties. It is important to note in regards to the county dummy variables, only 57 counties are shown in the statistics as the Los Angeles County Dummy is excluded from the regression results in order to decrease the probability of erroneous results; thus, establishing Los Angeles County as the base of comparison for all other county dummy variables.

Data Sources and Descriptive Statistics

The following tables contain additional details on the explanatory variables, specifically descriptions and sources (Table 1), descriptive statistics, including the mean, standard deviation, maximum and minimum values (Table 2), and bivariate correlation coefficients between the explanatory variables, which illustrate the strength and direction of the linear relationships (Table 3: See Appendix B).

VI. Regression Analysis

This section presents the results of the regression analysis performed on the data set. A comparison of the various functional forms is outlined in Table 4, which is followed by a justification for the functional form selected, the processes used in order to find errors in the regression analysis and the manners in which such errors are remedied.

Selecting a Functional Form

Table 4 illustrates how regression findings differ based on the functional form used. The log-log form is chosen as the functional form as the log-log regression results yielded 28 variables significant at the 90% confidence level. Conversely, the linear and log-linear regressions have only 22 variables and 21 variables significant at the 90% confidence level respectively. The expected directions for the following variables were found significant and in the expected direction in all three functional forms: percentage of students participating in free/reduced priced lunch programs (-), percent Pacific Islander (-), percent English learners (-), percent in Gifted and Talented Education programs (+), percent reclassified fluent English proficient students (+). However, surprisingly the results for all functional forms indicate that the percent of socioeconomically disadvantaged students

Table 1

Variable Labels, Descriptions, and Data Sources

Variable Label	Description	Source
Dependent Variable		
HI_API07	2007 California high school's Hispanic API Scores (Base Score)	California Department of Education (CDE), 2008 Growth API Data File; http://www.cde.ca.gov/ta/ac/ap/api-datafiles.asp
Independent Variables: High School Inputs		
Enrollment	Number of students enrolled on first day of testing	CDE, 2008 Growth API Data File
Full Credential	Percent of teachers with full credentials	CDE, 2008 Growth API Data File
Class Size	Average Class Size for Core Academic Courses	CDE, 2008 Growth API Data File
Excused	Percent of students excused from testing by parents	CDE, 2008 Growth API Data File
Tested	Percent of students tested	CDE, 2008 Growth API Data File
Independent Variables: Student Inputs		
African American	Percent of African American students	CDE, 2008 Growth API Data File
American Indian	Percent of American Indian students	CDE, 2008 Growth API Data File
Asian	Percent of Asian American students	CDE, 2008 Growth API Data File
Filipino	Percent of Filipino students	CDE, 2008 Growth API Data File
Hispanic	Percent of Hispanic students	CDE, 2008 Growth API Data File
Pacific Islander	Percent of Pacific Islander students	CDE, 2008 Growth API Data File
English-language learners	Percent of students English- language learners	CDE, 2008 Growth API Data File
Disabilities	Percent of students with disabilities	CDE, 2008 Growth API Data File
Socioeconomically Disadvantage	Percent of socioeconomically disadvantaged students	CDE, 2008 Growth API Data File
GATE	Percent of students in Gifted and Talented Education programs	CDE, 2008 Growth API Data File
Migrant Education	Percent of students in Migrant Education programs	CDE, 2008 Growth API Data File
Reclassified	Percent of Reclassified Fluent English Proficient students	CDE, 2008 Growth API Data File

Table 1

Variable Labels, Descriptions, and Data Sources

Variable Label	Description	Source
Independent Variables: Social Inputs		
Free/Reduced Lunches	Percent of students participating in free/reduced priced lunches	CDE, 2008 Growth API Data File
Parent Education	Parent's average education level	CDE, 2008 Growth API Data File
Level	(5 point scale in which 1=no high school education and 5=graduate school)	
Not High School Grad	Parent Education Level: Percent Not High School Graduate	CDE, 2008 Growth API Data File
High School Grad	Parent Education Level: Percent High School Graduate	CDE, 2008 Growth API Data File
Some College	Parent Education Level: Percent Some College	CDE, 2008 Growth API Data File
College Grad	Parent Education Level: Percent College Graduates	CDE, 2008 Growth API Data File
Grad School	Parent Education Level: Percent Graduate School	CDE, 2008 Growth API Data File
Independent Variables: Additional Controls		
Dummy: Year Round?	Dummy variable for status as a year round high school (coded 1 = year round; 0 = otherwise)	CDE, 2008 Growth API Data File
Dummy: Charter?	Dummy variable for status as a charter school (coded 1 = charter; 0 = otherwise)	CDE, 2008 Growth API Data File
Dummy: Small School?	Dummy variable for status as a small school for 2007 API (coded 1 = small school; 0 otherwise)	CDE, 2008 Growth API Data File
County Names	Dummy variables for county status; total of 57 dummies for the represented counties in the data set. (coded 1 = if high school represents county; 0 = otherwise). Los Angeles County is the excluded dummy and is the base for comparison.	CDE, 2008 Growth API Data File

Table 2

Descriptive Statistics

Variable Label	Mean	Standard Deviation	Minimum Value	Maximum Value
Dependent Variable				
HI_API07	640.12	76.991	368	930
Independent Variables: High School Inputs				
Enrollment	1255.82	779.99	55	3856
Full Credential	91.15	10.89	9	100
Class Size	26.40	5.03	4	40
Excused	.18	.42	0	3.95
Tested	97.97	3.01	60.99	100
Independent Variables: Student Inputs				
African American	18.71	15.28	3	62
American Indian	.36	.479	0	1
Asian	15.70	13.90	0	50
Filipino	2.76	4.41	0	46
Hispanic	51.04	25.46	6	99
Pacific Islander	.63	.96	0	8
English-language learners	19.27	14.814	0	100
Disabilities	9.79	11.84	0	100
Socioeconomically Disadvantage	.02	23.88	.87	99.69
GATE	10.11	9.47	0	75
Migrant Education	2.58	5.95	0	44
Reclassified	17.97	12.49	0	65
Independent Variables: Social Inputs				
Free/Reduced Lunches	46.91	26.01	0	100
Parent Education Level	2.60	.624	1	5
Not High School Grad	24.64	17.12	0	100
High School Grad	25.77	10.07	0	100
Some College	22.30	9.03	0	50
College Grad	17.55	10.98	0	100
Grad School	8.88	9.275	0	100
Independent Variables: Additional Controls				
Dummy: Year Round?	.021	.144	0	1
Dummy: Charter?	.040	.197	0	1

Table 2

Descriptive Statistics

Variable Label	Mean	Standard Deviation	Minimum Value	Maximum Value
Dummy: Small School?	.049	.216	0	1
Alameda County	.030	.182	0	1
Butte County	.004	.063	0	1
Colusa County	.004	.063	0	1
Contra Costa County	.019	.137	0	1
El Dorado County	.001	.032	0	1
Fresno County	.040	.197	0	1
Glenn County	.003	.055	0	1
Humboldt County	.001	.032	0	1
Imperial County	.012	.109	0	1
Inyo County	.001	.032	0	1
Kern County	.024	.154	0	1
Kings County	.005	.071	0	1
Lake County	.004	.063	0	1
Los Angeles County	.240	.427	0	1
Madera County	.007	.084	0	1
Marin County	.002	.045	0	1
Mendocino County	.004	.063	0	1
Merced County	.013	.114	0	1
Modoc County	.001	.032	0	1
Mono County	.001	.032	0	1
Monterey County	.014	.118	0	1
Napa County	.005	.072	0	1
Orange County	.069	.254	0	1
Placer County	.007	.084	0	1
Riverside County	.062	.242	0	1
Sacramento County	.042	.201	0	1
San Benito County	.003	.055	0	1
San Bernardino County	.059	.236	0	1
San Diego County	.094	.293	0	1
San Francisco County	.017	.130	0	1
San Jose County	.021	.144	0	1
San Luis Obispo County	.007	.084	0	1
San Mateo County	.019	.137	0	1

Table 2

Descriptive Statistics

Variable Label	Mean	Standard Deviation	Minimum Value	Maximum Value
Santa Barbara County	.011	.105	0	1
Santa Clara County	.036	.187	0	1
Santa Cruz County	.006	.077	0	1
Solano County	.012	.109	0	1
Sonoma County	.017	.130	0	1
Stanislaus County	.019	.137	0	1
Sutter County	.003	.055	0	1
Tehama County	.001	.032	0	1
Tulare County	.024	.154	0	1
Ventura County	.020	.140	0	1
Yolo County	.005	.071	0	1
Yuba County	.003	.144	0	1

Table 3

Regression Results Across Functional Forms

Variable Label Ln=Variable in log form	Log – Log	Log – Lin	Linear	Fs for Log – Log
Constant	2.671 (.021)	5.213 (.000)	-68.222 (.910)	
Independent Variables: High School Inputs				
Enrollment (Ln)	.000 (.908)	4.972E-6 (.319)	-.006* (.055)	2.370
Full Credential (Ln)	-.040** (.046)	7.154E-7 (.998)	-.013 (.944)	1.433
Class Size (Ln)	.033** (.033)	.001 (.416)	.173 (.708)	1.892
Excused	.003 (.743)	.004 (.645)	1.277 (.784)	1.357
Tested (Ln)	.692*** (.000)	.006*** (.000)	3.581*** (.000)	1.331
Independent Variables: Student Inputs				
African American	-9.245E-5 (.660)	-7.999E-5 (.688)	-.026 (.829)	1.302
American Indian	-.001 (.816)	.000 (.950)	.386 (.917)	1.170
Asian	.000 (.502)	.000 (.423)	.071 (.579)	1.178
Filipino	.001 (.415)	.001 (.103)	.853* (.067)	1.610
Hispanic (Ln)	-.020** (.046)	.000 (.271)	.180 (.257)	5.523
Pacific Islander	-.010*** (.010)	-.009*** (.009)	-5.296** (.015)	1.629
English-language learners	-.002*** (.000)	-.002*** (.000)	-1.530*** (.000)	4.002
Disabilities	.000 (.353)	1.341E-5 (.975)	.138 (.599)	1.543
Socioeconomically Disadvantage (Ln)	.032*** (.000)	.004*** (.000)	2.089*** (.000)	5.528
GATE	.001*** (.005)	.001*** (.003)	.727*** (.001)	1.683
Migrant Education	.002*** (.000)	.001** (.040)	.723* (.068)	2.079
Reclassified	.002*** (.000)	.001*** (.009)	.607*** (.007)	2.610
Independent Variables: Social Inputs				

Table 3

Regression Results Across Functional Forms

Variable Label Ln=Variable in log form	Log – Log	Log – Lin	Linear	Fs for Log – Log
Free/Reduced Lunches	-.001*** (.000)	.003*** (.000)	-1.581*** (.000)	6.483
Parent Education Level	.458 (.146)	.424 (.155)	241.954 (.186)	4930.660
Not High School Grad	.002 (.808)	.001 (.884)	.467 (.916)	2136.826
High School Grad	-.003 (.547)	-.003 (.518)	-2.189 (.484)	352.804
Some College	-.006 (.175)	-.006 (.177)	-3.421 (.194)	203.004
College Grad	-.010* (.072)	-.009* (.090)	-5.118 (.116)	478.081
Grad School	-.014* (.068)	-.013* (.083)	-7.315 (.111)	688.250
Independent Variables: Additional Controls				
Dummy: Year Round?	-.047** (.027)	-.034* (.092)	-20.315 (.103)	1.202
Dummy: Charter?	.011 (.473)	.017 (.231)	11.067 (.209)	1.075
Dummy: Small School?	-.033* (.053)	.002 (.917)	.132 (.989)	1.680
Alameda County	-.058*** (.001)	-.056*** (.001)	-36.936*** (.000)	1.385
Butte County	-.064 (.162)	-.060 (.167)	-43.072 (.103)	1.085
Colusa County	.000 (.993)	-.002 (.963)	-7.619 (774)	1.098
Contra Costa County	-.020 (.366)	-.012 (.561)	-10.558 (.411)	1.196
El Dorado County	-.006 (.950)	-.022 (.796)	-21.675 (.680)	1.072
Fresno County	-.016 (.354)	-.009 (.571)	-3.585 (.723)	1.463
Glenn County	.045 (.403)	.046 (.361)	27.984 (.366)	1.112
Humboldt County	-.041 (.648)	-.023 (.781)	-21.652 (.674)	1.044
Imperial County	-.036 (.228)	-.023 (.426)	-12.376 (.480)	1.288

Table 3

Regression Results Across Functional Forms

Variable Label Ln=Variable in log form	Log – Log	Log – Lin	Linear	Fs for Log – Log
Inyo County	-.119 (.184)	-.113 (.181)	-78.732 (.129)	1.042
Kern County	-.037* (.069)	-.031 (.107)	-22.807* (.054)	1.275
Kings County	-.015 (.722)	-.014 (.718)	-13.567 (.573)	1.123
Lake County	-.067 (.154)	-.059 (.182)	-43.915 (.103)	1.134
Madera County	.040 (.286)	.049 (.164)	26.386 (.222)	1.080
Marin County	-.026 (.688)	-.027 (.658)	-26.601 (.473)	1.066
Mendocino County	.003 (.953)	.008 (.858)	-.330 (.990)	1.104
Merced County	-.043* (.095)	-.030 (.224)	-18.111 (.227)	1.114
Modoc County	.053 (.555)	.050 (.558)	22.984 (.660)	1.054
Mono County	-.055 (.539)	-.073 (.385)	-55.506 (.283)	1.043
Monterey County	-.090*** (.001)	-.073*** (.005)	-45.630*** (.004)	1.225
Napa County	-.047 (.247)	-.033 (.385)	-25.368 (.282)	1.074
Orange County	.032** (.019)	.053*** (.000)	32.651*** (.000)	1.435
Placer County	-.048 (.175)	-.034 (.315)	-26.158 (.200)	1.147
Riverside County	-.027** (.046)	-.019 (.136)	-11.994 (.133)	1.330
Sacramento County	.003 (.851)	.017 (.301)	7.637 (.449)	1.625
San Benito County	-.141*** (.009)	-.112** (.029)	-68.241** (.029)	1.137
San Bernardino County	.012 (.393)	.007 (.616)	4.371 (.605)	1.479
San Diego County	-.029** (.015)	.025** (.031)	-18.815*** (.007)	1.544
San Francisco County	-.030 (.258)	.008 (.746)	-6.213 (.684)	1.567

Table 3

Regression Results Across Functional Forms

Variable Label Ln=Variable in log form	Log – Log	Log – Lin	Linear	Fs for Log – Log
San Jose County	-.049** (.023)	-.038* (.065)	-25.357** (.043)	1.243
San Luis Obispo County	-.007 (.849)	-.002 (.942)	-7.450 (.716)	1.136
San Mateo County	-.028 (.260)	.021 (.370)	-22.057 (.131)	1.510
Santa Barbara County	-.038 (.190)	-.032 (.241)	-24.783 (.140)	1.089
Santa Clara County	-.052*** (.002)	-.044*** (.005)	-32.605*** (.001)	1.235
Santa Cruz County	-.138*** (.000)	-.121*** (.001)	-82.744*** (.000)	1.104
Solano County	-.040 (.153)	-.028 (.290)	-22.944 (.159)	1.232
Sonoma County	-.069*** (.005)	-.062*** (.009)	-45.410*** (.002)	1.183
Stanislaus County	.006 (.790)	.022 (.314)	12.169 (.357)	1.245
Sutter County	.001 (.988)	.008 (.878)	-.392 (.990)	1.058
Tehama County	-.019 (.832)	-.028 (.735)	-22.322 (.664)	1.021
Tulare County	-.015 (.491)	-.012 (.545)	-11.382 (.368)	1.266
Ventura County	.004 (.860)	.010 (.630)	5.145 (.683)	1.211
Yolo County	-.069* (.087)	-.061 (.108)	-44.521* (.058)	1.061
Yuba County	-.010 (.842)	.008 (.870)	-.922 (.976)	1.077
R-Squared	.544	.592	.590	
Adjusted R-Squared	.508	.560	.558	
Observations	963	963	963	

Shaded Column: Functional Form Used

Ln Variables = Logged variables (variables that do not have zero or negative values)

*significant at the 90% confidence level, **significant at the 95% confidence level,

***significant at the 99% confidence level (All tests are two-tailed t-tests.)

Note: Los Angeles County Dummy excluded from regression results to decrease chances of erroneous results. Therefore, Los Angeles County is the base of comparison for all other county dummies.

Table 4

VIF Comparison: Pre- and Post-Corrections for Multicollinearity

Variable Label Ln = Variable in log form	VIFs Uncorrected for Multicollinearity	VIFs Corrected for Multicollinearity
Independent Variables: High School Inputs		
Enrollment (Ln)	2.370	2.38
Full Credential (Ln)	1.433	1.419
Class Size (Ln)	1.892	1.841
Excused	1.357	1.345
Tested (Ln)	1.331	1.305
Independent Variables: Student Inputs		
African American	1.302	1.305
American Indian	1.170	1.166
Asian	1.178	1.181
Filipino	1.610	1.601
Hispanic (Ln)	5.523	4.988
Pacific Islander	1.629	1.614
English-language learners	4.002	3.888
Disabilities	1.543	1.519
Socioeconomically Disadvantage (Ln)	5.528	*Excluded*
GATE	1.683	1.662
Migrant Education	2.079	2.075
Reclassified	2.610	2.523
Independent Variables: Social Inputs		
Free/Reduced Lunches	6.483	4.394
Parent Education Level	4930.660	*Excluded*
Not High School Grad	2136.826	9.210
High School Grad	352.804	2.866
Some College	203.004	2.596
College Grad	478.081	3.880
Grad School	688.250	3.283

has a significant and positive relationship with Hispanic high school API scores.

Furthermore, the Adjusted R-Squared values are higher in both the linear and log-linear regressions. However, this value is not comparable across the various functional forms. Thus, the choice on which functional form to utilize is based upon the number of significant relationships and in turn the log-log functional form is chosen. The double log functional form is interpreted as a percent change in an explanatory variable (holding all other variables constant) results in a percent change in the dependent variable (Studenmund, 211).

Errors in Regression Results

The most important phases in regression analysis are specifying a theoretically sound regression model, which includes the careful selection of explanatory variables, indicating the manners in which these variables are measured, as well as choosing the most effective functional form to illustrate the relationship between the independent variables and the dependent variable. Although careful consideration may be taken in order avoid various errors that result from steps involved in specifying a regression equation, certain errors may arise nonetheless as such errors naturally occur with the specific data set. Two common issues, particularly found in cross-sectional data models in which observations are collected from the same time frame (i.e. – 2007 academic school year), but are collected from different units (i.e. – high schools), are multicollinearity and heteroskedasticity. The following discussion addresses whether these issues are present in the regression results, and identifies the manners in which the problems may be and are remedied.

Multicollinearity

Multicollinearity is a violation of the Classical Assumption which states that, "no explanatory variable is a perfect linear function of any other explanatory variables" (Studenmund, 246). In the instance that there is a strong linear relationship between two or more explanatory variables, it is extremely difficult to assess the individual variable's affects on the dependent variable. Such strong relationships may result from the specific sample chosen or theoretical errors. For example, research surrounding social science topics that typically include conditional variables such as socioeconomic status, education level, and English-language capabilities, may often experience high multicollinearity as these variables are likely interrelated. Nevertheless, it is important to consider that it is extremely rare to observe a regression equation in which none of the explanatory variables are correlated with one another. Thus, multicollinearity is expected. However, it is the degree to which multicollinearity exists in the equation that is important to note. Although multicollinearity does not adversely affect the regression coefficients by creating bias, it may lead to high standard errors and low t-scores which in turn create difficulties in achieving statistical significance.

Generally, two techniques are used in detecting multicollinearity. The first involves the examination of the bivariate correlation coefficients which indicate the strength and direction of the relationship between two variables. In instances where correlation coefficients are high in absolute value, typically greater than 0.80, there is an indication of serious multicollinearity. As a result these values and relationships are identified (as noted in Table 3, Appendix B). Furthermore, multicollinearity may be detected by calculating the variance inflation factors (VIFs) for each explanatory variable (see Table 4). This measurement assesses the degree to which one explanatory variable may be explained by all other explanatory variables in the equation. The general rule states that VIFs greater than 5 indicate significant multicollinearity.

Results for this regression analysis, exhibit bivariate correlation coefficients greater than 0.80 and VIFs greater than 5 (Studenmund, 257-258). Such indications of multicollinearity are observed in relationships between student and social inputs, as well as relationships between two social inputs. In some instances (i.e. – the high bivariate correlation coefficient found between percentage of socioeconomically disadvantaged students included in the API and percentage of students participating in free or reduced price lunches), it may be necessary to eliminate either of the variables as the variable may be measuring the same effects. Typically students that are socioeconomically disadvantaged are participating in free or reduced price lunches and in turn the data may be repetitive. Although, this may not be true in all cases and arguments may be made on a theoretical level to include both variables in the regression equation as the variables are pertinent to the purpose of the regression analysis: to include and control for as many student, school, and social inputs in order to assess various variables' affects on 2007 Hispanic high school API scores, a decision was made to exclude percentage of socioeconomically disadvantaged students in order to correct for multicollinearity. In this instance, it is wise to drop a redundant variable (Socioeconomically Disadvantaged), which was initially included in order to prevent omitted variable bias, but now found to represent a similar effect on the dependent variable as another explanatory variable. Similarly, high correlation coefficients exist between the aggregate and disaggregate variables for parent education. In order to observe, more detailed relationships between the various levels of parent education and a high school's Hispanic API score, the aggregate variable measuring average parent education level on a scale is excluded. Thus, the main remedy used to reduce multicollinearity in this regression model is the exclusion of two redundant variables (Socioeconomically Disadvantaged and Parent Education Level).

Heteroskedasticity

Heteroskedasticity also violates one of the Classical Assumptions, which states that "observations of the error term are drawn from a distribution that has a constant variance" (Studenmund, 346). Thus, the condition of

heteroskedasticity is typically found in cross-sectional data sets where inconsistencies exist in the variance of the error term between larger and smaller observations (i.e. – large high schools and small high schools). Similar to multicollinearity, the consequences of heteroskedasticity do not lead to bias in the estimated coefficients. Nonethesless, heteroskedasticity adversely affects the regression analysis by likely leading to OLS incorrectly estimating the true coefficients, as well as the standard errors, which leads to an overestimation of the t-scores making them unreliable when hypothesis testing. For example, if a correlation coefficient's t-score is too high, it increases the likelihood that one will reject a null hypothesis when in fact it cannot be rejected. Thus, heteroskedasticity increases the chance of committing Type I errors.

A main method in testing for heteroskedasticity is the Park test, in which the residuals (or estimates of the error terms) from the regression are squared, logged, and tested in a subsequent regression. The second regression uses the log of the square residuals as the dependent variable and a Z factor, or the log of an explanatory variable (which may or may not be found in the original regression equation) that appears to vary with variance of the error term. When testing for heteroskedasticity in this analysis, the researcher identifies the variable "enrollment on the first day of testing" as the Z factor since there is suspect of significant variation in size of high schools within the data set. The interactive scatterplot of the squared residuals plotted against the Z factor (see Appendix C) illustrates that heteroskedasticity is not present. Additionally, the results of the t-test are not statistically significant indicating the possibility that heteroskedasticity is not present in the equation and that enrollment and the residuals are not related. Furthermore, the results suggest that one may not reject the null hypothesis of homoskedasticity as the absolute value of the calculated t-score (.963 or |-.963|) is less than the critical t- value (2.576 at a 1% level of confidence for a two-tailed t-test with 892 degrees of freedom). Thus, there are no corrections necessary for heteroskedasticity.

VII. Conclusion

The final regression results are summarized in the following subsections, which include discussions of the model fit, if the results of the study reflect prior expectations, the relevance of the significant variables in relation to Hispanic API scores, as well as potential policy implications and suggestions for future research on the topic.

Elasticities and Confidence Intervals

As demonstrated in Table 4, some of the variables included in the log-log functional form are able to be expressed in log form whereas others are not. When drawing conclusions regarding the relationships between the explanatory variables and California high school Hispanic API scores, one may conclude that either a unit or percentage change in the explanatory variable results in a unit or percentage change in the dependent variable. However, the coefficients are converted into elasticities in order to more easily compare the variables by addressing the magnitude of the effect of each explanatory variable on the dependent variable as the percentage change in the dependent variable given a one percent change in the explanatory variable (when holding all other factors constant). Furthermore, the coefficients and elasticities are converted into confidence intervals at the 90 percent level, which illustrate the range of possible values. Table 6 includes the coefficients and elasticities, as well as the confidence intervals for all the significant variables at the 90% level. The calculations used to compute each of the values may be found following the table.

Discussion of Findings

Model Fit

When evaluating the findings of a regression analysis, it is important to examine the quality of the regression equation and how well the model fits the data. The coefficient of determination, or R-squared, is observed as it indicates that percentage of variation in the dependent variable that is explained by the regression equation (Studenmund, 50). The range for the R-squared values is zero to one, with values closer to zero indicating a poor model and values closer to one indicating a "better fit." The R-squared for the log-log regression used in this study is .544 (as illustrated in Table 6). This indicates that the regression model explains slightly more than the majority of the variation in Hispanic API scores, which may be considered satisfactory. However, as the R-squared value remains considerably lower than one, which indicates a perfect model fit, the regression equation likely excludes specific variables that may be relevant to differences in California high school Hispanic API scores. Thus, future analyses may take into consideration factors, such as school district size, school district personnel, curriculum, or factors associated with individual tests that are used to determine API scores. This suggests the possibility of omitted variable bias, which indicates that the interpretation of the results must bear in mind that some factors associated with variance in high school Hispanic API scores are excluded, which in turn implies that the results must be interpreted with caution noting that as a portion of the variance is random or unexplained by the model.

Relationship between Expectations and Results of Significant Variables

The relationship between the expected directions of the explanatory variables (when holding all other variables constant) and the results from the regression analysis illustrate whether the study's findings are consistent with previous literature or may contribute additional information to the research. Many of the study's statistically significant results are consistent with previous studies concerning various factors effects on API scores, while others question

Table 5

Elasticities and Confidence Intervals for Significant Variables

Variable Label Ln = Variable in log form	Best OLS Results Log – Log	Elasticity	Confidence Level Range (90% level)
Constant	2.671 (.021)		
Independent Variables: High School Inputs			
Full Credential (Ln)	-.040** (.046)	-.040	-.092 to .012
Class Size (Ln)	.033** (.033)	.033	-.006 to .072
Tested (Ln)	.692** (.000)	.692	.44 to .944
Independent Variables: Student Inputs			
Hispanic (Ln)	-.020** (.046)	-.020	-.049 to .009
Pacific Islander	-.010*** (.010)	-.0010	-.02 to .00
English-language learners	-.002*** (.000)	-.006	-.002 to -.002
Socioeconomically Disadvantage (Ln)	.032*** (.000)	.032	.009 to .055
GATE	.001*** (.005)	.002	.001 to .001
Migrant Education	.002*** (.000)	.0008	-.001 to .005
Reclassified	.002*** (.000)	.006	.002 to .002
Independent Variables: Social Inputs			
Free/Reduced Lunches	-.001*** (.000)	-.007	-.001 to -001
College Grad	.010* (.072)	-.027	-.026 to .006
Grad School	-.014* (.068)	-.019	-.035 to .007
Independent Variables: Additional Controls			
Dummy: Year Round?	-.047** (.027)	-.0002	-.101 to .007
Dummy: Small School?	-.033* (.053)	-.0003	-.077 to .011
Alameda County	-.058*** (.001)	-.0003	-.104 to -.012
Kern County	-.037* (.069)	-.0001	-.089 to .015

Table 5

Elasticities and Confidence Intervals for Significant Variables

Variable Label Ln = Variable in log form	Best OLS Results Log – Log	Elasticity	Confidence Level Range (90% level)
Merced County	-.043* (.095)	-.00007	-.110 to .024
Monterey County	-.090*** (.001)	-.0001	-.160 to -.020
Orange County	.032** (.019)	.0004	-.004 to .068
Riverside County	-.027** (.046)	-.0003	-.063 to .009
San Benito County	-.141*** (.009)	-.00007	-.281 to -.001
San Diego County	-.029** (.015)	-.0004	-.060 to .002
San Jose County	-.049** (.023)	-.0002	-.106 to .008
Santa Clara County	-.052*** (.002)	-.0003	-.096 to -.008
Santa Cruz County	-.138*** (.000)	-.0002	-.236 to -.040
Sonoma County	-.069*** (.005)	-.0002	-.133 to -.005
Yolo County	-.069* (.087)	-.0001	-.172 to .034
R-Squared	.544		
Adjusted R-Squared	.508		
Observations	963		

*Significant at the 90% confidence level
**Significant at the 95% confidence level
***Significant at the 99% confidence level (All two-tailed t-tests)
Formulas Used:
Elasticity = Coefficient i * (mean of Xi/mean of Y): Coefficient i = Elasticity if variable is in log-form
Confidence Interval = Coefficient i +/- (Standard Error i* Critical t); Critical t = 2.576

the explanatory variables expected relationships. For example, the student factor, percent of English-language learners demonstrates the expected negative relationships to high school Hispanic API scores (significant at the 99% confidence level). In terms of additional social factors showing statistical significance at the 99% confidence level and the 90% confidence level respectively, percent of students participating in free or reduced price lunch programs, percent of parents who are college graduate, and percent of parents who attended graduate school have negative relationships with API scores. These results concerning parent education levels are contrary to the expectations as one would believe that a higher population of educated parents may lead to higher API scores. However, the difference in the findings may be explained as the parents who are college graduates or have attended graduate school are not parents of Hispanic students. Therefore, these students do not have the benefits of individuals with experience in higher education at home to positively influence their schooling to create a conducive learning environment. Thus, a negative relationship exists.

In regards to ethnicity, percent Pacific Islander is negatively related as expected. However, percent Hispanic is also found to be statistically significant and negatively related, which is contrary to the expectations. A positive relationship was expected as Hispanic students attending high schools with high Hispanic populations may be more likely to perform well in a more comfortable learning environment where there are a majority of students with similar backgrounds and experiences and the students do not feel excluded. On the other hand, a negative relationship may exist due to the fact that Hispanics generally have low academic scores and the higher percentage of Hispanics at a high school; the increase likelihood that poor performing Hispanic students are contributing to the API score. Furthermore, percent of students in Gifted and Talented Education Programs, migrant education programs, and percent of students reclassified as Fluent–English-Proficient students have significantly positive effects on high school Hispanic API scores.

The findings concerning two of the included school inputs, full credentialed teachers and class size in core academic courses are inconsistent with the expected relationships. For example, percent of full credentialed teachers is found to be statistically significant, but has a negative relationship to high school Hispanic API scores. Conversely, class size in core academic courses is hypothesized to have a negative relationship with the dependent variable, but the regression indicates a positive relationship. The results show a small relationship for both variables at the 95% confidence level. For percent of full credentialed teachers, the results may suggest that it is not necessarily the type of teaching credential a teacher possesses that may affect Hispanic API scores (as the results of this study and previous studies conflict), but rather other factors must be considered, such as race/ethnicity of the teacher. Moreover, the positive effect of class size in core courses may indicate that Hispanic perform better when engaged with more students in the classroom. However, both factors must be further examined in order to better determine the reasons for the unexpected relationships.

In regards to other control variables, which were not predicted to have any specific effects, the year-round and small school dummy variables are significant and are negatively related to Hispanic API scores indicating that, when holding all other variables constant, Hispanics score lower on the API scale when attending high schools operating on a year-round academic calendar or when attending small schools, which report only 11-99 valid API scores (CDE, 2009). Furthermore when controlling for individual counties, the regression yielded significant negative relationships for the following counties: Alameda, Kern, Monterey, Riverside, San Benito, San Diego, San Jose, Santa Clara, Santa Cruz, Sonoma, and Yolo; and only one statistically significant positive relationship for Orange county. These results suggest that specific counties (and possibly school districts) must be further examined in detail in order to determine why Hispanic high school students perform better in specific counties versus others.

Magnitude of the Effects of Significant Factors

The relative impact of each explanatory variable on the dependent variable is observed in the magnitude of the elasticities. For example, an explanatory variable that has a high elasticity is more influential than an explanatory variable with a lower elasticity. Therefore when examining the results of research, it is important to focus on the explanatory variables that are more likely to greatly impact the dependent variable. Consequently, the development and implementation of policies and reforms must primarily concern such variables as these factors will yield the most benefits or assist in alleviating great costs.

In this study, factors that significantly impact test scores according to the elasticities are the following: percent full credentialed teachers, class size in core academic courses, percent Hispanic students, and percent of students tested for the API. More specifically, for a 10% increase in full credentialed teachers, Hispanic API scores are expected to decline by .40%. The impact of class size in core academic courses is similar, but positive, as a 10% increase in class size is predicted to increase Hispanic API scores by .33%. Furthermore, a 10% increase in Hispanic students is expected to decrease Hispanic API scores by .20%. Lastly, a 10% increase in the percent of students tested for the API, is expected to increase Hispanic API scores by 6.92 percent. However, as previously mentioned in the discussion of expected effects, increasing the number of students tested does not necessarily lead to higher API scores. Conversely, which students are tested may improved API scores, but improvements made in relation to this variable may be viewed as a strategy by a high school to unethically raise API scores by testing only those students that can perform well on tests. When further examining the predicted

coefficient interval ranges, the confidence intervals for percent of full credentialed teachers and percent of students tested are the broadest in comparison to average class size in core academic courses and percent Hispanic students. This suggests that the actual outcomes from altering these variables are likely to greatly vary. Thus, when implementing new policies with the goal of improving Hispanic API scores, it is important to understand the degree to which the results are likely to occur.

Evaluating the Research Question and Policy Implications

The purpose of this regression analysis was to determine specific factors that influence changes in Hispanic API scores in California public high schools. The study's design examined various high school, student, and social factors that may be significantly correlated to Hispanic academic performance. Significant findings may increase discussions of Hispanic students' successes and failures in California's public education system. The results are disappointing in terms of magnitudes, as well as odd in regards to the results aligning with the expected directions. Perhaps a more narrowly focused study of a particular geographic region, school district, or individual high school may yield more significant results regardless of whether the outcomes coincide with previous research results.

Nevertheless, it is important to recognize that various factors are found to have statistically significant relationships to Hispanic API scores at confidence levels between 90 and 99 percent. Previous studies also support the fact that different inputs influence academic performance. Therefore, the more positive factors Hispanic students are exhibited to, the increased probability that these students will have higher API scores. Conversely, the more negative factors present, the increased likelihood that Hispanic students will have lower API scores. Consequently, policy-makers and educational administrators must consider multi-faceted solutions in creating greater success in the Hispanic student population. Based on this study, as well as previous findings, solutions to certain factors may be limited as the "issues" are out of the hands of public intervention methods.

Future Research

When conducting future research on Hispanic API scores in various California high schools, studies may choose to examine individual counties in further detail. A general study may be conducted to examine regions of interest and draw comparisons by grouping the 58 counties in California into geographical areas, such as Northern, Central, and Southern California. However, aggregating county dummy variables may decrease the effects of the individual counties and further limiting the significance of the study. Nevertheless, it is suggested that county differences be further assessed. In addition, various variables may be of interest when further studying Hispanic API scores. Factors, such as curriculum inputs, school district size, and school personnel composition, particularly in regards to ethnicity, are excluded in this particular study, but may impact Hispanic academic performance.

The preliminary regression on the various factors influencing Hispanic API scores is extremely broad, which may have adversely affected the results of the analysis. Granted, the factors that contribute to academic performance are difficult to understand as the majority of the findings may not be generalized across sample populations. This study provides limited information on the factors impacting Hispanic API scores. Thus, further research that is more thorough, perhaps examining more specific explanatory variables is warranted. A detailed examination and comparison of Hispanic API scores for high schools within a particular school district may prove to be an interesting Master's thesis.

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Appendix A

Study Methods and Research Findings on Affecting Academic Performance Index (API)

Publication Date, Authors	Location, N (Sample Size) Years of Data	School Level/Population Examined in Sample
(2000) Baker, et. al.	Nationally. 14,596 students, 1988 (longitudinal data)	Eighth grade students
(2003) Driscoll, et. al.	California, 5525 public schools representing 755 districts, 1999 Academic Performance Index scores	Elementary Schools, Middle Schools, and High Schools
(2002) Goe	California, 6387 public schools, 1999-2000 Academic Performance Index scores	Various
(2006) Goodman and Young	Pacific coast state, 150 public school districts, API year unspecified	N/A – school districts
(2003) Powers	Los Angeles Unified School District, San Diego Unified School District, 534 public schools, comparison of 1999 and 2001 API scores	Elementary schools
(2002) Slovacek, et. al.	California, all California public schools, comparison of 1999, 2000, and 2001 API scores	N/A – Charter vs. Non-Charter Schools (with a focus on low socioeconomic schools)
(2006) Sung, et. al.	California, 200 public schools, 2003 API scores	High Schools

Appendix A

Study Methods and Research Findings on Affecting Academic Performance Index (API)

Publication Date, Authors	Details Provided on the Methods of Statistical Analysis	School Level/Population Examined in Sample
(2000) Baker, et. al.	Mean comparison, Ordinary Least Squares Regression	Regression on aggregate race groups indicate that whites and Asians outperform other groups. Under the Hispanic subgroup, Cuban students perform the best, while in the Asian classification, it is dependent on the subject as to which ethnicity performs better. Socioeconomic status and language proficiency play significant roles.
(2003) Driscoll, et. al.	Regression analysis (for each school level)	District size is negatively correlated with API scores at the elementary and middle school level. No statistical significance found for high schools.
(2002) Goe	Multiple regression analysis	Found multiple student characteristics variables to be statistically significant and negatively correlated with API scores (i.e. socioeconomic status, parents' education, % of emergency permit teachers).
(2006) Goodman and Young	Regression analysis	The number of school psychologists has a significant positive correlation with school district's API scores.
(2003) Powers	Regression analysis	The districts differed in the sign of the coefficient for teachers' possessing full credentials. However, in both districts' traditional calendar schools and schools with students of a higher socioeconomic background have higher API scores.
(2002) Slovacek, et. al.	Correlation analysis, regression analysis	Charter schools serving high populations of low socioeconomic status students outperform non-charter schools serving the same students in API scores and are more likely to improve annually.
(2006) Sung, et. al.	Regression analysis, descriptive statistics and T-tests	A statistically significant positive correlation is found between enrollment in foreign language classes and school API scores.

Appendix A

Study Methods and Research Findings on Affecting Academic Performance Index (API)

Publication Date, Authors	School Level/Population Examined in Sample
(2000) Baker, et. al.	Math performance: results indicate significant performance percentage decreases in scores for blacks (6.78), Native Americans (7.10), and Hispanics (3.85). Reading performance: a 3.86
(2003) Driscoll, et. al.	For a 1% increase in district size, there is a 5.27% decrease in base API scores for elementary schools, a 4.00% decrease in base API scores for middle schools, and a 1.42% decrease in base API scores for high schools.
(2002) Goe	A 1% increase in students qualifying for free or reduced price lunches is associated with a 1.47% decrease in API scores. A 1% increase in the percent of Hispanic students results in a 9.1% decrease in API scores. A 1% increase in percent of parents without a high school diploma results in a 1.18% decrease in API scores. Lastly, a 1% increase in the percent of emergency permit teachers is associated with a .62% decrease in API scores. Conversely, a 1% increase in the percentage of parents that attended graduate school is associated with a 2.01% increase in API scores.
(2006) Goodman and Young	A one unit increase in the number of school psychologists employed in the school district results in a statistically significant .69% increase in base API scores, while a one unit increase in the number of school counselors employed in the school district only results in a .18% increase in API scores, but this effect is found to be insignificant.
(2003) Powers	(2001 results) Los Angeles Unified: a 1% increase in percentage of students in reduced price meal plans and percent of ESL students results in decrease of 2,52% and .30% in base API scores respectively. San Diego Unified: 1% increase of students in meal plans and percent of ESL students yields a 2.52% and 1.06% decrease in API scores.
(2002) Slovacek, et. al.	1% increase in the percentage of ESL students results in a .56% decrease in API scores. A 1% increase in percentage of students participating in lunch programs is associated with a 2.65% decrease in API scores. Conversely, a 1% increase in the percentage of teachers with full credentials results in a 1.06% increase in base API scores.
(2006) Sung, et. al.	Specific magnitudes unreported. However, researchers conclude that as the percent of students enrolled in foreign language classes increases, API scores increase.

Appendix B

Interactive Scatter Plot: Test for Heteroskedasticity