Enhancing literacy among rural, work-oriented youth: a cultural analysis

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ENHANCING LITERACY AMONG RURAL, WORK-ORIENTED YOUTH:
A CULTURAL ANALYSIS

by

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A Dissertation
Submitted to the University at Albany, State University of New York
In Partial Fulfillment of
the Requirements for the Degree of
Doctor of Philosophy

School of Education
Department of Reading
2010
Abstract

This dissertation focuses on educational reform in New York State in relation to two policies that I term “dual reform.” The 1996 Regents graduation policy required all students to participate in the college-prep curriculum and attain a Regents diploma, while the 2001 Career and Technical Education (CTE) policy promoted integrative approaches to teach academic topics within CTE. The central study questions were: How has literacy reform been constituted in relation to CTE within two rural communities? How does CTE enable and constrain youth literacy learning and development?

Participants included educators and students in two rural CTE schools. Data, collected over one year (2006-2007), included semi-structured interviews, classroom observation field notes, curriculum and policy documents, and student writing samples. Grounded theory (Strauss, 1978) and situational analysis (Clarke, 2005) techniques were used to examine data across experiential/ethnographic and institutional/policy levels. “Risk society” (Beck, 1992) theory and research connected to youth development, individualization processes, and youth-adult transitions offered analytic perspective as well.

Four central findings emerged through this study: (1) Dual reform appears to prioritize and reward a single approach to CTE change, focused on CTE-academic curriculum integration and the creation of courses that awarded both academic and occupational credit. Yet, fiscal and structural constraints make realization of this model a challenge for some rural schools. Different types of support would be beneficial. (2)
Better balance is needed between curriculum integration and attention to individual students’ literacy needs in CTE. Adolescent literacy specialists, as well as English teachers, could enhance student learning and offer literacy coaching support to CTE teachers. (3) Multiple activity systems (CTE, academic classes, worksites, recreational literacy practices) are relevant to CTE youths’ literacy learning and could be profitably “networked” (Ivanic, et al., 2009) to enhance development. (4) CTE educators are vigilant and creative in their support of working class youth, and CTE schools fulfill multiple roles in rural communities. They can serve important functions for youth development, even after youth graduate from high school. A central goal of dual reform should be to strengthen the role of CTE as a community institution, as well as a secondary school option.
In loving memory of
Evelyn Kliger Albert,
Sidney W. Albert
and
Donald Lehr
ACKNOWLEDGEMENTS

I thank the administrators, teachers, and students of Rural Tech and Regional Occupations for their time and interest in this project. Access was never an issue in these schools: the doors were always wide open, and my nosy intrusions into the learning life of the classes I visited were tolerated with good cheer and enthusiasm.

Deepest thanks to Dr. George Kamberelis for directing this project over the long haul. His intellectual companionship, abiding interest, flexibility, and sharp questions were mainstays through many years of work, and I am grateful for his personal and professional support. I felt encouraged at every step.

I am grateful to my committee members, Dr. Margaret Sheehy and Dr. Peter Johnston, for guidance with this project. Their discerning writing and research about literacy pushes me to resist taken-for-granted answers about what counts in literacy learning and teaching. Their demand for evidence to support my claims has sharpened and improved this work considerably.

I took courses with many exceptional scholars and teachers at the University at Albany. Working with Dr. Miriam Raider-Roth, Dr. Mark Jury, and Dr. Kelly Wissman, I was fortunate to be involved in research and writing projects that not only provided excellent academic mentoring, but also focused on ideas and issues that are close to my heart and to this dissertation. Thanks to all of you.

Thanks to Dr. Lois Weis of SUNY Buffalo. I took one class, years ago, with Dr. Weis and it helped to shape my intellectual life and passions ever since, becoming part of the foundation for this project. What a tremendous thinker, writer, and scholar-activist.
I offer thanks to my colleagues in the SUNY Potsdam Department of Literacy Education and School of Education and Professional Studies. They have been steadfast in offering support during my three years at the college…steadfast and utterly patient, that is, always with kind words and encouragement.

I thank friends, near and far, who offered a sounding board, a meal, a place to stay, comfort, and encouragement: Michelle Friedman, Kim Hewitt, Paula Costello, Barbara Gioia, Jane Bonacci, Caren Friedman, Judith DeGroat, Kathleen Morris-Kortz, Anne Townsend, Lorie MacKenzie, Eudora Watson, Margaret Bass, Mary Hussmann, and Danielle Egan. Prue Posner offered all of this and more: help with thinking through the nature and scope of the project, even before its inception, since we have worked together – and chatted about – the issues at its center for a very long time. I am thankful for the critical, pragmatic, empathetic perspective on young adults and education she has shared with me. It has been – and continues to be – formative.

Thanks to the Baltimore crew— my sisters and their families: Rachel, Kevin, and Tom Brubaker; and Susan, Paul, Emily, and Andrew Abell. Without their support, lots of laughter, and time for play, I cannot imagine getting to this point with this project. They all have kept an even keel during very difficult times of illness and stress with our parents, for so many years. What an enormous responsibility. I have often been in awe that they both have done so with young children and busy lives. I look forward to years ahead filled with visits, travel, and time with those kids I adore. I am grateful to Mildred Kessler, my aunt, for all of her love and support, as I finished “the paper,” and to my cousins and their families. I thank Anne Lehr, Pat Lehr, and Ken Bayne for love and support.
I think daily about, and give thanks to, my dad, who died in October 2009. He would be so proud and happy about this accomplishment. He struggled mightily these past few years, physically debilitated but with a mind and wit as sharp as a tack. My heart aches that he wasn’t able to see me finish this up. I miss him terribly. I also am grateful for the love and support of my aunt, Miriam Rehr, who died a few weeks before my dad (her brother). My mom remains a true inspiration for many things that I do and dream when it comes to books, learning, teaching, libraries, and much more. I know she, and my Buby, would be full of joy about this project and my work.

My gratitude to Valerie Lehr, my “partner in crime.” We have a wonderful, loving home that is always active with silly dogs and demanding cats, cooking, talking, walking, biking, and just continuing to enjoy each other’s company. What more can there be? Thank you.
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Chapter One
Introduction

It is April 2010 and February unemployment figures were released recently in New York State. The primary site of my dissertation study, which I call Holmes County, is a remote, rural county that ranks near the bottom statewide, with an 11.2% unemployment rate (New York State Dept of Labor, 2010). It is part of the North Country, a geographically-sprawling region that boasts the Hudson River headwaters and the stunning Adirondack Mountains. Nearby is a thriving military base, located in the only county of the State that has seen population growth over the past few years.

Population decline, particularly a loss of young people, marks Holmes County and most surrounding counties as well. Indeed, eleven other rural and semi-rural counties jockey for the dubious distinction of having the highest rates of unemployment in the State, though most other areas -- particularly the small Rustbelt-type towns throughout its middle and western sections -- show rates between 9-10%. Close to Holmes County’s current unemployment figures is the densely-populated borough of the Bronx. Despite occupying nearly the highest and lowest cartographic points of the state, the fate of the North Country and the Bronx as regions has been entwined through our unemployment statistics for several years.

I did not set out to unpack how or whether this similarity holds significance for my research interests. Yet, over the years, I have found it compelling to consider how these types of statistics might connect seemingly disparate places, particularly when it comes to their effects on young people’s aspirations, and access to resources for learning
and development. In the United States, there is a dearth of research about both rural and work-oriented youth (Howley, 1997; Gibbs, Kusmin & Cromartie, 2005). This condition has led me to search widely to gain understanding of the issues that interest me: youth literacy development, work-oriented education, rural youth, and concepts of risk and being at-risk. To a great extent, such issues have been posed in relation to urban youth and urban schools in the United States. Studies of rural youth, learning, and labor are more prevalent in research conducted in the U.K., Western Europe, Australia, and New Zealand. I have tended to migrate toward varied demographic, social, and national contexts to illuminate my research interests and to frame questions, such as those posed for this dissertation study. In particular, I have searched for work that explores how structural forces – the politics, economics, geographies, and social conditions of places – influence the availability of resources for youth to learn and grow, and thus show how place plays a direct role in youth development.

At the same time, I try to guard against the tendency to conflate economic and social indicators with any particular outcomes for youth. Indicators do just that: they point the way to certain forces that we should pay close attention to, but they should not determine what we might understand about the diverse ways in which young people grow, change, and make their way towards adulthood. What is compelling, I believe, is the need to gain insight into the economic and social contexts of growing-up in distinct kinds of places.

How to distribute opportunities for learning and support young people’s growth towards secure futures are the consuming questions of my research. By spotlighting conditions and possibilities facing small-town and rural youth, schools, and communities,
I seek to stay close to home in my analyses, and contribute to sociological research about rural youth and literacy education. But, I am always aware that what I discover has resonance beyond our landscape, just as the histories and discoveries emerging from distinctly urban geographies may be deeply significant to what happens in rural schools. Each situation clearly is a small piece of a large puzzle, or maze, that makes growing up simultaneously exciting and challenging for many young people.

**Overview of the Study**

Among high school reform advocates, the call is strong to position Career and Technical Education (CTE) as a central part of standards-based school reform. On the one hand there is a need for schools to fulfill mandates, such as the need to address the demand in the federal *No Child Left Behind Act of 2001* (NCLB) that CTE meet certain accountability requirements, just as academic programs must do. On the other hand, there is hope that CTE can be strengthened because of its valuable role in offering young people knowledge of occupations and opportunities to become part of occupational networks. In these capacities, CTE has long been recognized as an option in high school that helps both work-oriented youth and those at-risk of dropping out (Gray, 2004; Hoachlander, 2005). Yet, over the past decade, there also has been an increasing interest in figuring out the role of CTE more broadly within secondary education.

New York is an interesting case on what I call the dual-reform front, or the effort to connect high school reform focused on intensified academic standards, with reform focused on CTE (see Castellano, Harrison & Schneider, 2007, for a recent analysis). Since 1996, the state has undertaken a very specific approach to academic reform through the mandate that all students pass college-prep courses and exams in order to graduate.
These exams constitute the State’s exit exams for graduation, and they are part of the established and vaunted Regents course and exam system, which has been in place within the State for more than a century. In addition to the new academic requirements, the State has required CTE to craft curricula that better align occupational studies with the academic goals embedded in the Regents policy. A 2001 CTE policy (which I explore within the present study) spelled out the details of this effort. To regulate the process of CTE change, the State developed an elaborate review process of programs of study, one that has placed in conversation and collaboration CTE teachers, high school content-area teachers, and representatives from both business/industry and relevant postsecondary fields.

Such attention suggests that a well-developed, coherent system now exists to link the long divergent paths of college-prep and occupational learning, creating something new. In this dissertation, I explore what this claim looks like in practice, in relation to two specific CTE schools. In these sites, I witnessed an embrace of change and a groundswell of new ideas, as well as evidence of tension and contradiction, as administrators and teachers discussed and debated the messages embedded in the academic and CTE reform policies. How to support students who chose CTE because they struggled academically, had few interests in academic courses, and/or intended to enter the workforce rather than college following high school came up regularly among CTE insiders. Within their discussions, there was further debate about how CTE should go about literacy instruction. CTE teachers faced the reality that students were confronting new literacy-related demands in their academic courses. CTE itself was being transformed (or being urged to transform) as prevalent discourses about
occupational education pressed CTE programs to address directly the literacy demands of occupations, and the purported need for CTE to prepare students for higher education in order to meet emerging workplace literacy demands.

In this dissertation, I examine how literacy reform was understood and enacted along two dimensions: (a) as part of the broader school reform effort that took shape in New York State by the mid-1990s, and (b) in relation to dominant CTE discourses about the need to change work-oriented courses to integrate academic and occupational concepts. My study looked specifically within two CTE schools, which I call Rural Tech and Regional Occupations. I explain site selection and sampling procedures in Chapter Three.

Across both sites, I explored the conditions that led to the emergence of distinct responses to student literacy needs, hoping to shed light on the impact of policy from the perspective of administrators, teachers, and students: people who made decisions about how to implement policy, and were affected by policies and discourses at a local level. The two major questions of this study were:

1) How has literacy reform been constituted in relation to CTE within two rural communities?

2) How does CTE enable and constrain youth literacy learning and development?

In the process of addressing/answering these questions, I place this study in conversation with a wide range of research and theory related to youth development, adolescent literacy, and the socioeconomic contexts of postsecondary transitions—particularly for youth who aspire to enter the workforce after high school. As a youth worker and administrator for rural dropout-prevention and career exploration programs
throughout the 1990s, I gained familiarity with this group of rural young people and the personal-social conditions of their development. I grew in my understanding of the double and triple binds youth faced as they sought the means to move into “adult roles,” juggling – all at once – a hope to become people who were decidedly unbound by place, a desire to stay close to their roots, and, frequently, a sense of constraint as economic forces made the notion of “choosing” anything feel more and more elusive. Constructing, with youth, a range of resources that might aid them in building dispositions and identities to “juggle” with a sense of competence drove my work and, ultimately, shaped my research herein.

**Organization of Chapters**

Although I grew in my understanding of the complex forces rural youth faced, my uncertainties about what could “help” them also grew. Quite often, young people’s participation in CTE seemed to ground and orient them in ways that other activities of learning had not. In Chapter Two, a literature review, I explore relations between and among analyses of (a) contemporary CTE reform, (b) constructions of the learning needs of adolescents who struggle as readers and writers, (c) challenges and opportunities within rural education, and (d) social theorizations of the risk conditions confronting young people, in an era when the terms invoked to reference “youth” have multiplied, and the practices regarded as central for youth-adult transition have become ambiguous and complex (Allatt, 1997; Evans & Furlong, 1997).

Chapter Three focuses on the settings, participants, research design, and data analysis strategies used in this study. I explain why I combined ethnographic approaches and grounded theory techniques to explore multiple types of data, including: (a) policy
documents and curriculum materials, (b) CTE classroom observations, and (c) semi-structured interviews with CTE administrators, teachers, and students. I was intent on maintaining a focus on reciprocal relations between theory and practice, with respect to the issues central to this project, throughout the study. It was important to try to reflect constantly on how particular theoretical concerns – and gaps in the empirical work related to CTE reform and adolescent literacy – constantly challenged me, shaping my decisions about what to observe and when, which questions to ask, and how to consider policy-practice connections (or lack of them). Hence, in addition to explaining my methods of conducting research in this study, in Chapter Three I also continue discussion of some of the theoretical work introduced in Chapter Two.

My findings take shape in Chapters Four, Five, Six, and Seven. Each one makes visible an element that I identified as central to addressing my research questions. Taken together, they articulate the complex personal, social, and structural forces that led to different configurations of academic-occupational integration in CTE sites, fostered distinct approaches to supporting youth literacy development in CTE, and inspired new questions about youth transitions. Chapter Four focuses on policy contexts for integration and literacy instruction. In it, I introduce the 1996 Regents graduation policy and the 2001 CTE policy, and I examine how and why the State promoted them as mutually reinforcing. I argue that policymakers attempted to naturalize a particular understanding of what it means for youth to gain sufficient preparation for postsecondary life, in spite of evidence from youth researchers that narrow notions about the transition to adulthood limit the scope of policy and practice related to youth development, and cannot account for the diverse types of learning practices and experiences that benefit
youth (Chisholm, 2008). Chapter Five extends this discussion by exploring how, in the
effort to enhance student literacy development, educators in each study site took up,
reconfigured, resisted, or even ignored mandates or the dominant messages embedded in
policy discourses.

Chapters Six and Seven bring forth particular dimensions of the policy-practice
relationship. I focus on teachers and teaching in Chapter Six, and students and learning
in Chapter Seven. Both chapters draw from semi-structured interviews, classroom
observations, and analyses of written documents (primarily curriculum materials and
student writing). I did not seek to identify or try to explain direct relationships between
Teaching practices and learning outcomes in these chapters. Rather, I highlighted certain
people and situations that stood out as especially enlightening to understand different
approaches to supporting youth literacy development in CTE contexts.

In the conclusion, Chapter Eight, I draw together findings from the study as a
whole, and I link them to the issues and concerns raised in the empirical and theoretical
discussions within Chapter Two. Various practices of literacy reform within CTE made
visible the effects of certain gaps – gaps in logic across the policies driving reform, gaps
within and across institutions through which young people “become” literate, and the
yawning (if often invisible) gap of social support that seems to affect young people after
high school, if they do not pursue college. I argue that, against and in spite of these gaps,
youth actively construct themselves as “adults,” and try to marshal a range of resources to
enhance their competence with literacy practices they view as relevant to their
intellectual, occupational, social, and personal growth. I conclude by discussing the
following question: What are, and what should, we be doing in schools to support the
widest range of ways for young people to develop happiness and competence, let alone literacy, as they anticipate the transition to work, further education, and civic life?
Chapter Two

Literature Review

I’ve become a leader here. In one of my English classes the teacher said one day that she always thought of me as a student leader. I had to think about it for a while, but I guess she was right. I always voice my opinion. In Hilltown they always said they were training us to become community leaders. It seemed to me like they were training the jocks, the kids from the south side, and the good readers to be the leaders. The rest of us were supposed to just listen. Here at the voke school we are all the kids who were the listeners at our old schools. We know what it feels like not to be able to talk because our opinions weren’t valuable. Here we learn to talk. We knew how to listen when we came here. Now we are learning how to talk. (Walter, Forestry graduate, quoted in Nagle, 2001, pp. 94-95)

No single theory, teaching practice, or policy statement related to literacy education begins to capture what Walter, a late 1990s vocational high school graduate in Massachusetts, was able to convey in the brief response above. It appeared as part of an interview in Jane Nagle’s (2001) phenomenological study, *Voices from the margins: The stories of vocational high school students*. Against the wishes of his mother, with the support of his father, and in the netherworld of school guidance systems that found him facing a counselor who encouraged him to attend vocational school – while suggesting at the very same moment that his best friend, standing next to him, not go because he was “too smart” -- Walter made the decision to attend anyway. He articulated in several lengthy interviews how he finally constructed a positive social and learning identity only after he began his vocational studies, which included alternate weeks of field-based work, classroom-based forestry studies, and academic courses in English, math, and science. Doing this, Walter assumed a stance in which he could justifiably critique, on several
levels, how stratification had debilitated him, and then how one part of a segmented educational system offered him a new path.

Narrating his account of work-oriented learning, Walter adeptly traced associations among learning, agency, and self-efficacy, with his emergence as a school leader coming only through his participation in vocational education. Throughout the interviews with Nagle, he also depicted his evolution through a series of self- and school-imposed literacy labels. Walter began as an enthusiastic reader, became troubled, then, troubling and, according to the school, “slow.” He finally started reading to learn (in vocational school) and felt purposeful. Not incidentally, it was only when purposeful that he came to see himself as a successful reader. His self-description in the interview occurred as he teased out the social trajectories made possible by being a “good reader;” by believing one was or was not, or could or could never be, a good reader; and by figuring out the hierarchies that structured who listened and who talked.

Nagle provides long tracts from this and other interviews. These accounts illustrate how attuned the young people in this study were to the classification systems defining them as types of literacy learners. They also enable readers to examine the links that emerge between such systems, and patterns of instruction that reinforce or challenge them. It is quite moving to read Walter’s account, in which he makes the academic-social-cognitive connections that researchers often labor to demonstrate. It also makes a great deal of sense that Walter did this so well. Like his peers, he had occupied the corners and pockets of a formal education system structured through deep divides between mainstream and non-mainstream views of learning (Rose, 2008a). Walter’s text was not unique among the twenty in-depth portraits Nagle examined in this volume.
Taken together, these students’ experiences represented and communicated a common knowledge.

The insights of Walter and his peers can be placed next to those of critical theorists and researchers who study education as both a tool, and effect, of social production and reproduction (among them Cohen, 1999; Reay, 2001; Weis, 1990, 2004; Wexler, 1992). As Nagle reports, the young people in her study, angry about the processes that created their second-class status, searched for a positive way to construct themselves as learners. At times, they discovered possibilities to do so in vocational studies. Even in this context, many continued to personalize the struggles they had experienced as learners, blaming themselves, Nagle says, “for their failure to access school literacy” (p. 119). Their ability to re-value themselves and to have the chance to thrive as learners did not magically alter the conditions that frequently had denigrated the kind of learning they wanted to pursue, nor did it somehow guarantee they would find support in vocational education to expand their literate capacities. Rather, these young peoples’ narratives show how their literate development was simultaneously truncated and emergent. Various school practices pushed them to the margins. Their marginalization was compounded by parental inattention, their own and their parents’ difficulty in engaging or valuing the school-based literacies, and more. These youth found it difficult to sustain a broader rather than narrower “horizon of action” about their future (Hodkinson, Sparkes, & Hodkinson, 1996)—though, unlike Paul Willis’s 1970s English lads, and more like the youth Weis (1990) studied in “Freeway,” few rejected this idea outright as a desirable goal.
Nagle focused her critique on the complex way that young people’s “consequential transitions” (Beach, 1999) and growth as learners via vocational education were made possible despite their disenfranchisement from mainstream schooling. Just as students’ accounts helped to pinpoint their position in the contradictory conditions of re/production in schooling, Nagle’s reflexiveness throughout the book revealed her distinct position in this paradox:

I kept wondering how all the listeners (which was Walter’s term for marginalized students) ended up in vocational education. I was plagued by the thought that vocational education might be the ultimate marginalization. The decision to escape marginalization and enter vocational education might not be productive but instead be reproductive.

After devoting seventeen years of my professional life to vocational education, I was finally facing the paradox that my students had found their places in school by entering a system that might be their final marginalization. (2001, p. 118)

Consideration of this tension helped Nagle to articulate how individual dispositions and the seemingly impenetrable boundaries of social fields emerge and take shape in spaces where renewal, and the possibility of breaking down certain barriers, also might be located (Collins, 1999). “Vocational high schools,” Nagle writes, “offered the participants the first places in school where they felt comfortable and achieved a certain sense of school success” (p. 124).

The extent to which school reform policies and practices might mitigate the negative lessons some students learn before participating in vocational programs — lessons resulting in “marginalization, voicelessness, and failure” among Nagle’s students (p. 124) — remains unclear. The views and voices of Walter and Nagle reveal the need to push beyond binary thinking about academic and vocational education (see also Rose, 2008a,b). In particular, they urge readers to notice the ways in which young people’s
literacy development occurs within, across, and outside the borders that define any particular activity as academic, vocational, avocational, and more. I locate my dissertation project as part of the effort to identify how these spaces are related to one another or might be better related, to meet the needs and interests of work-oriented youth.

My study examined the beliefs, practices, and symbols that constitute CTE as a site within which youths’ literacy identities and practices might, or might not, develop. In looking at how literacy reform has been constituted in relation to Career and Technical Education (CTE) reform within New York State, I trace the roots for my project to four domains of scholarship, which I examine in this chapter: (a) vocational/occupational/CTE, (b) adolescent literacy, (c) rural education, and (d) youth studies research about postsecondary transitions. By analyzing how learning and development needs are defined within, and addressed across, these domains, I hope to identify resources that can be cultivated to strengthen career and life opportunities for rural youth.

I use the terms “vocational,” “occupational,” and “CTE” interchangeably. Policy leaders press for the consistent use of “CTE,” rather than “vocational,” in research about this field, primarily to offer a broad representation of work-related study and to offer a discursive solution to the longstanding stigmatization of vocational education in American schooling. Yet, scholars, educators, and students use all three terms, and some seem to view the move from “vocational” to “CTE” as ideologically suspect, an attempt to minimize or erase socioeconomic class as a force in schooling and youth development (Lakes & Carter, 2009). Additionally, I refer to students engaged in occupational learning as “CTE students” or “work-oriented youth.”
Educating Work-Oriented Youth

Background of Reform

Since the late 1980s, restructuring CTE through academic-occupational integration has been an important topic in relation to high school reform. Despite flaws in implementation (Grubb & Lazerson, 2004), the infusion of career awareness concepts and new career courses in K-12 education continued beyond the “sunsetting” of legislation that provided federal monies to the States to support school-work linkages. In a federal study of vocational education released in 2004, more students reported they were exposed to career-related instruction at a greater rate than had ever been seen in the recent past (Silverberg, Warner, Goodwin & Fong, 2004b).

Statistical analyses of large-scale data sets have dominated CTE research and shape how the concept of effectiveness has been defined in relation to CTE and learning. Recent studies suggest that specific combinations of academic and CTE courses may optimally prepare youth for college and careers (DeLuca, Plank & Estacion, 2006; Stone & Aliaga, 2003). Taking too many CTE courses, in the absence of rigorous academics, appears to disadvantage learners (Laird, Chen, & Levesque, 2006). Although their research supports this view, DeLuca, Plank, & Estacion (2006) also suggest that CTE’s efficacy should be studied in relation to multiple factors shaping student learning. Castellano, Stringfield, & Stone (2001) concur, and further call for “a set of overlapping studies of diverse efforts at high school reform, each with a slightly different lens and set of methods” (p. 263) to strengthen CTE research and practice.

In addition to enhancing learning and teaching generally, CTE may play a vital role in at-risk students’ school persistence (Gray, 2004; Plank, DeLuca & Estacion,
There has been a growing national interest among advocacy, policy, and intermediary organizations to foster “multiple pathways” and “accelerated learning” options to engage youth on the margins of schools by supporting their learning from high school into college and offering work-oriented study as part of the process (Oakes & Saunders, 2008; Pennington, 2002). In this regard, middle & early colleges, dual and concurrent enrollment, and themed learning communities with work-based connections all have taken shape.

From “Vocational” to “Career and Technical” Education

Despite this recent history of innovation and interest in CTE, the proper role of CTE as part of compulsory public education remains debatable, just as it always has been. Indeed, discussion of the relationship between learning and work has been a constant focus of attention – and anxiety - for politicians, policy-makers, and educators since the late 1800s (Kliebard, 1995; 1999; Rose, 2004).

Debate about the role of vocational learning intensified in the early 1990s when the rhetoric and policy of “School-to-Work” (STW) emerged in the U.S. STW was designed to improve learning and work outcomes for students, both those who participated in vocational education and the large numbers of students viewed as stuck in a nonproductive mid-point, in-between vocational and college-preparatory schooling tracks. In particular, STW sought to engage this middle cohort in intellectually challenging curricula with occupationally-viable endpoints in the knowledge economy. In so doing, advocates hoped to eliminate the general school track, which they viewed as a detriment to students since it enabled them to amass courses and credits haphazardly and without direction, leading them to be poorly prepared to prosper in college, but also
ill-equipped to gain access to “good jobs” in the workforce (Organization for Economic Cooperation and Development, 1999).

STW ideology and program experiments were, in part, an outgrowth of the now-familiar 1983 “A Nation at Risk” declaration that American schools were failing students, and society, by allowing large numbers to graduate without sufficient academic knowledge, or preparation for college and rapidly-changing workplaces. In the risk climate this policy discourse generated, STW ideas came to make sense only to the extent that the reforms they generated could improve academic skill and attainment—whether the targeted students were the unsung middle or the traditional working-class group who looked to vocational education as a realistic and attractive way to finish school with marketable capabilities (Grubb & Lazerson, 2004: Lynch, 2000). By the late 1980s, according to Lewis, Stone, Madzar, and Shipley (1998), a “second wave of reform” emerged, directed less at lifting up the academic bottom to position all for college, and focused instead on creating a “structured transition to the workplace” for non-college bound youth (pp. 2-3). By the early-mid-1990s, many called for a blending of these goals: advanced academics combined with more work-oriented experiences, in school settings and actual workplaces, then took shape as the mantra of STW advocates (Bailey, 1995; Bills, 2004).

Perkins II, the 1990 legislation developed for the new STW paradigm, was designed to encourage more academically-rich vocational education, and more career-minded academic instruction, at K-12 and postsecondary levels. The notion of “academic-occupational integration” as a guiding principle for effective 21st century teaching and learning materialized with Perkins (Grubb, 1995a). Out of Perkins II grew
the 1994 School to Work Opportunities Act (STWOA), which provided funds to states to create K-14 learning pathways, as well as a number of other options to support academic-occupational learning. Another iteration, Perkins III, appeared in 1998, with an emphasis on states’ accountability for making the changes required to enhance vocational education, particularly through academic upgrading and improvements to learning and guidance systems (Silverberg, et al., 2004a). In 2006, Congress enacted Perkins IV, designed to integrate CTE with the goals of the federal NCLB legislation. Specifically, the legislation required school systems seeking Perkins CTE funding support to develop “Programs of Study” that integrate academic and occupational study through deliberate linking of secondary and post-secondary formal learning. Additionally, they must implement rigorous measures of technical competence related to program offerings, and collect and report data related to CTE students’ academic achievement (Carl D. Perkins Career and Technical Education Improvement Act of 2006).

The movement from vocational education to CTE represents an effort to shift the paradigm of thinking around work-oriented learning and its place in public education. As the re-branding of vocational education-as-CTE has taken shape, researchers have refined their approach to investigating learning among work-oriented students. In particular, they have begun to look at the combined impact of legislated Perkins changes and overall academic reform on student course-taking patterns and achievement.

**CTE Participation and Outcomes: Contemporary Trends**

The bulk of CTE research conducted over the past decade examines large-scale survey, high school transcript, post-secondary attendance and attainment, and earnings data, such as the 1997 National Longitudinal Survey of Youth (NLSY97) and the 1988
National Educational Longitudinal Study (NELS88). Researchers have attempted to link course-taking patterns to income and other demographic indicators to find out the extent to which vocational education affects learners’ opportunities in the workforce and higher education. The data gleaned shed light upon how vocational interests influence students’ aspirations for further learning; the relationship between vocational course-taking and attainment of meaningful training or credentials after high school; and students’ ability to find jobs that suit their education and training, pay decent wages and benefits, and provide for upward mobility.

For example, analyses of national student datasets mentioned above demonstrate that the number of “vocational concentrators” (students who take three or more credits in an occupational field) has been on the decrease for years. At the same time, the academic achievement of “dual concentrators,” who combine a vocational focus with core academic courses, has improved, and there have been increasing numbers of students pursuing this combination since the mid-1990s (Levesque, 2003). The achievement levels of these students rival those of the conventional pre-college academic track, as Plank’s analysis of 1988 NELS data demonstrates. Plank (2001) found that

…dual and academic concentrators differed only slightly on standardized tests of mathematics, science, reading, or history. The small, but statistically significant, advantage enjoyed by purely academic concentrators may be partly attributable to the additional coursework in advanced subjects…a middle-range integration of CTE and academic scheduling has significant potential to reduce the likelihood of dropping out. Specifically, a ratio of approximately three CTE credits to every four academic credits was associated with the lowest likelihood of dropping out…especially …for individuals who are otherwise at risk of dropping out due to low prior grades, or low prior test scores, or other risk factors. (p. 318)

Based on a review of available research about short and long-term impacts of vocational course-taking on further education and earnings, the 2004 National
Assessment of Vocational Education (NAVE) research team concluded that vocational coursework enhances young people’s earnings up to seven years after high school graduation. There appeared to be a cumulative impact as well, with additional courses augmenting the increase to earnings. The researchers point out that since data are based on earnings rather than wages, “the evidence that vocational education increases wages—a proxy for a ‘better’ job—is weaker, and it is likely that the benefits will continue to decline over time” (Silverberg, et al., 2004a, p. 5). Although vocational coursework may have a positive impact on work attainment, NAVE suggests that students who concentrated in vocational studies in high school did not improve their overall academic achievement, as measured by standardized test scores in academic subjects (math, reading, science). The effect of vocational coursework on the development of occupational expertise is less clear. NAVE notes the absence of coherent measures of technical competence, or consistent uses of available measures, within the career fields representing vocational studies.

Gary Hoachlander (2005), a policy analyst and consultant whose research NAVE drew upon for its report, urges caution interpreting these findings. He suggests we know little about the ways in which reform in vocational education is helping to improve specific occupational and technical competence; we also know little about how such competence may or may not contribute to intellectual development more generally, academic achievement specifically, or pursuit of advanced technical competence:

It is possible that [vocational education] reforms have simply failed. But it is also possible that we are using the wrong metric to evaluate them. So far, the only gauge of these efforts’ academic results has been standardized achievement tests. And, by that measure, these efforts have performed no better (or worse) than the conventional academic curriculum. Standardized tests are vital to our efforts to improve student performance, but the fact is that they assess very narrow
definitions of academic achievement. For the most part, they do not measure students’ diagnostic abilities, capacities for bringing interdisciplinary knowledge to bear on complex problems, understanding of systems, or facility in applying abstract knowledge and academic skills to authentic, real-life situations. (p.3)

Hoachlander also suggests the earnings effect NAVE reported is significant, even if limited. In essence, this finding offers support for the claim that the vocational programs studied were effective in what they set out to accomplish. A critical issue around vocational education and its role in secondary education generally, then, has to do with the extent to which Americans support these outcomes as worthwhile within public schooling: “One of the great ironies in the high school reform debate,” Hoachlander asserts, “is that we criticize academic instruction for failing to do what it is supposed to do, while we condemn career and technical education for succeeding in doing what it was designed to do” (p. 2).

Perhaps unsurprisingly, Silverberg et al. (2004 a,b) found that what most conclusively appears to improve high school academic achievement, as measured by standardized tests, is academic course-taking. The authors cite a recent study comparing occupational concentrators’ and non-concentrators’ scores on the 1994 and 1998 reading and math tests of the National Assessment of Educational Progress (NAEP). Across ethnoracial and socioeconomic groups, vocational concentrators made greater gains in reading and math than their non-concentrator counterparts, reducing the gap in attainment between them. At the same time, however, the authors report that “smaller shares of concentrators than other students” met NAEP proficiency levels in reading and math (29.3% of concentrators vs. 44.8% of non-concentrators, for 1998 NAEP 12th-grade reading) (p. 107). Silverberg et al. speculate that higher academic requirements have pushed all students to take more challenging courses, resulting in improved achievement.
The larger jump in NAEP scores between 1994 and 1998 for vocational concentrators versus non-concentrators could be due to the larger gaps existing between them to begin with, or to the expanding class of academically-oriented students pursuing occupational programs.

The need to specify who appears to be benefiting from which reforms—reforms that have varied dramatically within and between states, as well as within program types (academic, occupational, or integrated)—has made analysis of vocational education and its apparent effects a difficult and elusive enterprise. Specifying further to account for what tests used in these analysis are supposed to be measuring, how or whether analyses link test results to students’ coursework and curriculum, and the extent to which we gain a comprehensive of student learning and prospects for further learning has only added to the complexity. The existence of so many variables, in fact, makes it difficult to assess the value of statistical portraits that are forced to define variables narrowly and can only identify relationships based upon these variables.

Overall, while NAVE’s authors are careful to point out the need for school systems to better support vocational students given the advent of high-stakes and exit tests across the nation, NAVE’s tone towards vocational education is skeptical at best, and the lengthy NAVE report concludes that of utmost importance is improving the training of vocational educators so they can better teach the academic content that is the ubiquitous center of contemporary learning and teaching. Importantly, the NAVE authors also warn that inadequate data and great variability in the implementation of the Perkins III data-collection mandate makes it quite difficult to draw overarching conclusions about the effects of vocational education on students’ transitions to work and
further education. As indicated, many of the studies NAVE relied upon were, at the time of NAVE’s publication, still in-process, not yet published themselves. All of these factors need to be considered before one draws conclusions about the state of vocational instruction, student aspirations and motivations, achievement effects, and policy directions.

Integration of Academic and Vocational Studies

With the advent of School-to-Work legislation and the projects it spawned, which were designed to strengthen the academic content of vocational education and prepare students both for postsecondary education and changing workplaces, researchers and educators stepped-up the argument that schools needed to be re-designed to integrate traditional academic study and its (typically separate) counterpart of work-oriented study. As Pearson, et al. (2010) note, many scholars locate their interest in this idea in the work of philosopher John Dewey, who

argued for designing curricula so that students could be educated through the occupations rather than for the occupations. Rather than conceptualizing narrow, specific job skills as the goal of occupational courses, Dewey believed that occupational contexts could provide a rich venue through which students could effectively learn important fundamental concepts in traditional subject matter. (p. 2)

Those who now argue in favor of integration claim it should be seen as the backbone of a formal learning system tied to a labor culture that demands flexibility and academic credentials. School systems must help students to be prepared for continuous learning so they can adapt to economic volatility and increasing competition for good jobs; curricula that fuse work-specific and academic study, rather than a work-focus alone, will meet this challenge (Stasz & Brewer, 1999; Grubb, 1995b). Importantly, a number of the same researchers in this tradition also call for a stronger infusion of
resources (social, economic, health) to stem inequities produced through such volatile conditions, since education alone cannot achieve this goal (Stern, 2009; Lakes & Carter, 2009; Grubb & Oakes, 2007). What these researchers share is a perspective that sees schooling as something that can help youth develop the capacity to exercise agency as they construct their labor identities, and to be prepared to learn across the lifespan (Chappell, Rhodes, Solomon, Tennant, & Yates, 2003; Lawy, 2003). Despite the demise of STW and its federal funding stream by the late 1990s, as the focus on standards-based academic reform gained prominence, many small-scale experiments begun under the STW banner continued in earnest at the secondary and post-secondary levels, and influenced the scope and shape of integration as Perkins III and Perkins IV evolved (Perin, 2001; Stasz & Bodilly, 2004).

**Locating Adolescent Literacy in CTE—and CTE in Adolescent Literacy**

An emphasis on contextualized academics and integration in the School-to-Work era produced new CTE programs that stressed literacy improvement among students (Brand, 2003). Still, many school systems did not make the dramatic organizational or curricular changes required to adopt whole-school reform programs that have shown to have a positive impact on the literacy learning of work-oriented youth. Among these programs are High Schools That Work (a model designed and supported by the Southern Regional Education Board) and Talent Development High Schools (designed and supported by Johns Hopkins University’s Center for Social Organization of Schools). In the absence of school district buy-in to large-scale programs such as these, educators search for ways to meet student learning needs and cope with a range of organizational constraints. In New York, districts have been variously effective in their use of State-
imposed reform mandates to enhance student learning and raise expectations for student achievement (Killeen & Sipple, 2005).

Although educators hope CTE reform will simultaneously improve occupational teaching and learning, broaden its appeal, and reverse the historical practice of tracking poor, and low-achieving, students into CTE, recent research demonstrates that CTE still functions in many schools as a best or last-chance option for youth who’ve struggled academically and youth “at risk” of dropping out of school (Plank, DeLuca, & Estacion, 2005; Gray, 2003). Despite the presence in the new CTE programs of peers with stronger records of academic achievement, the learning needs of many CTE students are great. As Grubb (2003) suggests, addressing the literacy needs of academically weaker youth might require that educators and policymakers look outside of typical institutional channels to better address students’ learning needs.

Sociocultural View of Literacy: Re-framing Need and Ability

Over the past twenty years, literacy scholars have advanced understanding of youth literacy needs, particularly in terms of the following: (1) the relationship between students’ reading and writing difficulties and their academic achievement in specific content areas; and (2) the role of young people’s sensibilities and practices of literacy in the ecology of particular learning activities and spaces (i.e., how/whether youth-defined literacies are valued, or not, and seen as able to foster development). Diverse understandings about the nature of literacy shape expectations about what adolescents need to do to become more literate. While some educators and researchers define literacy improvement largely through the lens of subject area mastery and engagement, others view improvement largely in terms of strengthening the relationship between young
people’s experiences and uses of literacy across diverse settings, and the literacy ideologies and practices of school. Aligning with one or the other of these views often stems from one’s beliefs about whether literacy should be defined as a cognitive process - an individual, in the head activity; as a sociocultural practice -- part of a fluid set of textual, relational, and discursive activities that are woven into the social practices of varied cultures, institutions, and groups; as critical action, inflected by relations of power based on the ways that race, gender, sexuality, religion, ethnicity and other defining aspects of subjectivity take shape; or as an amalgam of all or any subset of these stances.

Such distinctions, which differentiate literacy ideologies, have been important to consider in my project because foundational beliefs like these underpin how people define the literacy needs of students, and shape expectations about what instructional contexts can help youth to develop. Some educators make the assertion that CTE literacy instruction should foster work-specific, situated forms of literacy pedagogy that address how literacy is used and developed in occupational fields. Others contend that the existing pedagogies, networks, and resources that structure CTE should be built upon to support student success in the academic courses that frequently have vexed students who choose CTE. From a different perspective entirely, one might argue that, given the age, prior experiences, and aspirations of CTE youth, literacy teaching and learning should take its cues from adult literacy programs. These programs typically try to offer individualized, empowerment-focused instruction using curricular and pedagogical approaches that are tailored to the developmental levels and learning aspirations of students (Belzer, 2006).
Research in a sociocultural vein focused on reframing “at-risk” adolescent learners closely parallels the questions my project poses about the link between theories of literacy and theories of youth and development. Alvermann (2001), for example, draws from McDermott & Varenne’s (1995) “culture as disability” construct to discuss ways she could and could not see the development of Grady, a student participant of a literacy project based in a public library. Alvermann watched Grady grow in his ability to use increasingly complex texts associated with computer games, texts she assumed would be too difficult for him based upon his grade-level reading achievement. Learning from Grady, Alvermann says she finally recognized his “at-risk” status had to do with the ways that “culture arranged for Grady to take up the position of struggling reader by institutionalizing a set of school-related literacy tasks on which Grady was measured and found to come up short” (p. 687). Grady’s competence in one set of literacy activities forced Alvermann to reconsider many assumptions.

Alvermann’s beliefs were further challenged when she witnessed Ned, another student “at risk,” engage in sophisticated exchanges with a graduate student mentor during email discussions, through which they deconstructed popular music icons and iconography, examining many forms of text and text-making processes. As correspondents, the two challenged each other, and Ned needed to justify and analyze his views to Kevin, his email buddy. Doing so evinced complex capacities for reasoning and communication that Alvermann did not expect to see in Ned (Alvermann, Hagood & Williams, 2001). Although she’d long advocated the need for explicit apprenticeship-type instruction (cf. Schoenbach, Greenleaf, Cziko, & Hurwitz, 1999) to help youth access and gain competence around academic literacies youth, her experience with
Grady, Ned, and other participants in the library program seriously challenged Alvermann’s beliefs. Reflecting on Grady, Alvermann (2001) admits,

Any ideas I might have had about what he could and could not do as a reader were based on a set of presumptions I carried with me from my earlier education in, and experience with, the deprivation approach to teaching struggling readers. Now, rather than seeing Grady as a "have-not" in terms of some stable set of reading competencies, I have come to understand how it is possible for a different set of competencies to construct him, as well as Margaret [a co-researcher] and me, in some very different ways. (pp. 687-688)

Studies that re-frame young people who struggle in literacy – not by de-emphasizing their needs as much as re-emphasizing their strengths and the activity settings that frame their strengths and needs, and constructs literacy in particular ways as a result -- typifies much recent adolescent literacy research. Alvermann (2003) has analyzed a wide swath of contemporary adolescent literacy research to construct a framework for what she calls “re/mediation,” building on the understanding of this term advanced by Elkins and Luke (1999), as well as O’Brien (1998, 2001), Knobel (2001), and other researchers in the tradition of New Literacy Studies (New London Group, 1996). Shifting from fixing students to constructing curricular and pedagogical practices that foster engagement and self-efficacy in multimodal practices of meaning-making and representation, this strand of adolescent literacy research, says Alvermann (2003), requires a fundamental change in teachers’ and teacher educators’ expectations for what needs changing—students or the conditions in which they are taught. It is not a magic bullet that will improve literate adolescents’ motivation for school-related reading tasks, but it does ensure that they will have a range of texts (print, visual, aural, and digital) with which to engage and learn from (p. 17).

Assessment Troubles

What often becomes a confounding factor to implementing instructional change along the lines Alvermann and others advance is the set of literacy assessment practices
operating in many school systems. Advocating a New Literacy Studies (NLS) focus on literacy as process and design, Johnson and Kress (2003) argue there is a fundamental and very dangerous mismatch driving schooling in many nations, including the U.S. Regardless of educators’ willingness to adopt critical practices aligned with NLS perspectives, most assessment systems have not caught up and, in fact, have moved more drastically toward narrow views of literacy, despite evidence that literacy is a flexible, fluid, situated resource, and that action to use literate tools to convey and take in meaning occurs in diverse ways across all fields of study, by all kinds of learners:

If we move away from the notion of ‘the use’ of a given, existent, fixed and stable system to a conception of constant reshaping and transformation by individuals of a socially and culturally shaped resource, along the lines of individually conceived yet always socially produced interest, then that places human social agency at the centre. That makes human representational action always transformative, innovative, creative—not seen as a rare event or a rare quality, but as entirely usual or normal. (pp. 12-13)

A system of literacy assessment that evolves from this view would take the modes of meaning-making and representation that are part of a field of action as the starting point for discovering what a learner knows and can do. In fact, in CTE, the growing emphasis on building literacy as a part of CTE learning exists alongside a move to assess occupational knowledge less through the use of competency-based checklists, and more by gathering evidence of skilled performance of a range of work-related practices across a range of settings. The potential to view literacy broadly, given this perspective, seems great, yet given the academic struggles many CTE students face, what it might take to embed a sociocultural or critical view of literacy within this context is not clear. In fact, “the literacy curriculum” is distributed across students’ CTE and academic courses, and these may or may not be congruent or mutually reinforcing. As Johnson and Kress (2003)
state, “sociocultural and activity theory and a theory of social semiotics both provide useful premises for understanding human cognition…[but] assessment theory has tended to ignore action and artefact mediation as central elements in learning, thereby limiting our appreciation of how meaning is appropriated and transformed” (p. 13). The more that particular assessment systems dominate understanding of what makes a young person educated, intelligent, and sufficiently prepared for life beyond high school, the more critical it is to leverage CTE - and other educational contexts where literacy develops - to have the transformative effects that NLS and sociocultural theorists advocate.

**Literacy In / And CTE: To What End?**

It is crucial to identify the relationships and ecologies that may encourage development and young people’s agency. While much of the research base on “at-risk” adolescent literacy learners makes clear the need for interesting and relevant curricula, studies have focused primarily on secondary content-area classrooms. Literacy research related to work-oriented learning has been more prominent in the two-year college and adult literacy fields. In addition to the work of Nagle, introduced at the start of this chapter, research by Park (2007) and Darvin (2004) draws attention to specific curricular or pedagogical strategies to support students in the context of occupational study. In a participatory action research/teacher research study, Darvin (2004) describes her use of situated cognition theory in vocational education to expand youth literacy practice, and to collaborate with teachers to redefine how literacy could be addressed within the fabric of their occupational courses. A full-time English teacher in a vocational high school, Darvin observed occupational classes, designed her English courses so that they extended
and deepened knowledge from students’ occupational courses, and, at times, co-taught in occupational classes.

Park, a former agriculture teacher, conducted experimental research to investigate the impact of reading strategy instruction on CTE students’ comprehension of occupationally relevant texts, vocabulary knowledge, and motivation for reading. CTE teachers, he found, could learn to integrate literacy teaching into their day-to-day occupational instruction, but they needed to be part of communities of practice focused on the exploration of literacy in CTE to sustain their effort (2007). Park’s ongoing research in this area constitutes one part of the experimental studies on curriculum integration in CTE, which have been undertaken through the National Research Center for Career and Technical Education (Pearson, et al., 2010).

My primary interest in relation to work-oriented youth has to do with fleshing-out how various approaches affect student literacy development, and how decisions about the use of particular approaches are related to the conceptions of youth development and postsecondary transitions of educators making such decisions. Few examples of such research are available. Where they do exist, they tend to be focused on youth in “post-compulsory” learning settings outside of the United States (see Ivanic, et al., 2009). It is from such work that my awareness grew of the need to ground my study as part of a specific form of schooling, place, and policy/practice discussion. In the last two parts of this review, I discuss how studies of rurality, and post-structural views of youth and transition, have helped me to frame my investigation.

Rural Education: Continuity and Change
Rural youth often exhibit strong place-based histories and attachments (Howley, Harmon, & Leopold, 2006). Consequently, they face particular difficulties as economic activity becomes disembedded from rural places. Coping with economic restructuring while preserving rural lifeways is a consuming issue that lies at the center of much debate among policymakers and sociological researchers concerned about rural America (Nelson & Smith, 1999). Since they develop in response to local, and often restricted, labor markets, CTE programs in rural areas tend to offer a more narrow range of options than their urban and suburban counterparts (Hudson & Shafer, 2002). Nevertheless, they appear to serve an important role for youth, and are cited by youth and adults in rural New York as resources to expand (NYS Rural Vision Project, 2006). A critical rural education issue is how to structure these resources to remain responsive both to broad-scale economic changes and rural youths’ needs and interests. In considering the role of CTE for learning and development among the participants of my study, and in weighing the affordances and constraints of certain approaches to enhancing literacy in relation to these participants, it grew clear that I needed to interrogate rural as a construct. In Chapter Three (Methods), I provide some specific information about socioeconomic conditions facing rural New York youth. Here, I paint a broad-stroke picture.

Nationally, rural leaders and economic planners struggle to find ways to lure back college-educated rural youth who move to urban areas to begin their careers (Carr & Kefalas, 2006). They also struggle to address the needs of the rural poor and working class – people for whom jobs, when available, often pay low wages, are seasonal, and are unrelated to whether or not a worker has an advanced degree. Frequently, the dominant message framing rural youths’ aspirations about their adult role is that they “need to
‘move out’ in order to ‘move up’” (Hektner, 1995, p. 12). Poor rural youth face the prospect of a bleak economic future not only due to the economic instability of rural regions, but also due to the loss of the cushion once provided through the sharing of resources among extended family and community members. Such a cushion is more and more difficult to sustain in rural areas, as Fitchen (1991) discovered in her anthropological research in upstate New York during the 1980s and early 1990s.

In New York, rural students comprise 19.4% of all students in the state, and 29.4% are considered to live in poverty (Johnson, 2009). Rural areas in New York experience high out-migration, high property tax rates, and a high level of dependence on state school aid, relative to per-capita income and community resources (Sipple & Blakely, 2009). Despite the challenges facing rural communities in New York, rural adults hold complex, perhaps even contradictory, perspectives around what might improve rural life and prospects for youth. A November 2009 poll of rural adults in New York, conducted by the New York State Center for Rural Schools, found that significantly more rural residents express satisfaction with schools, compared with urban and suburban residents. More than their counterparts in non-rural areas, rural residents wish schools would do more to “prepare students for local employment rather than for college,” and help strengthen local economies and healthcare services (Sipple, Casto & Blakely, p. 2).

The type of educational investment that many policymakers advocate as appropriate for youth, claiming it is the foundation for their own viability as well as their community’s future, may prove difficult for rural residents to embrace. It is an investment that spells the out-migration of young people, the very segment of the
population that also is viewed as central to community sustainability (Harmon, 1998). Sipple, Casto and Blakely (2009) call this the “Catch-22” of rural New Yorkers’ perspectives, and conclude that it is small schools that are likely to “face the greatest pressure to change” in order to survive in the current economic and cultural climate (p. 2). At the same time, rural students nationally participate in CTE at higher rates than many urban, and most suburban, counterparts (National Center for Education Statistics, 2005). The link between rural CTE and community development has not been widely explored, however. As Harmon (1998) expressed in relation to the 1990s legislation that catalyzed both academic and vocational education upgrading,

A rural school-to-work opportunities system is more likely to be successful if it involves the community to set goals, utilizes the community as a learning laboratory, engages students in meaningful service-learning activities, creates school-based enterprises and other entrepreneurial initiatives tied to local economic needs, practices community-based career guidance, and embraces parents as equal partners. (p. 4)

In the present study, some CTE administrators made it clear that they dealt with a great deal of tension when it came to broadening the range or depth of CTE programs, even if they aimed to achieve the goals set out by Harmon and other rural researchers. I examine why this was the case in subsequent chapters, especially as it related to the prospect of restructuring CTE courses to enable students to earn academic, as well as occupational, credit. What stood out from their accounts is that there is a need to recognize the paradoxes and binds faced by work-oriented, rural youth – youth typically from working-class backgrounds – as they navigate educational, social, economic, and cultural contexts organized largely around an understanding of youth-adult transitions, workforce preparation, intelligence, community, and self that are defined with little
consideration of rural experiences (Corbett, 1997; Albert & Jury, 2005; Burnell, 2003; Jury, 1999; Howley, 1997; DeYoung & Lawrence, 1995).

Scholars in the field of critical geography remind us that place sensibilities give content to, and specify, people’s aspirations and sense of trajectory, though they caution against a view of place as a pure representation or stability. Places, as well as identities and boundaries, are only “provisionally stabilised,” more fluid than permanent (Murdoch & Pratt, 1997, pp. 66-67). The meaning of place never is self-evident, continuous, or uncomplicated, but the fact that places have meanings and residual histories should not be discounted (Gelden & Bourke, 2008). Places are kinds of “layered locations” structured by multiplicity, producing certain continuities, but also disjunctures, and volatile ideas of “belonging” (Lippard, 1998, cited in Cresswell, p. 40). As the final section of this review reveals, rural environments – stable, shifting, or layered – might logically offer young people a sense of being moored in ways that are quite appealing, even if risky, when set against even larger frameworks of dislocation.

Youth Studies Research about Transitions to Adulthood and Work

Students bring widely diverse background experiences into schools, schools exhibit varying levels of commitment to increasing equity, and links between educational credentials and jobs are unstable. All of these factors make it difficult to construct a single formula for helping students leave the period of compulsory schooling ready to be lifelong learners, though, as Grubb and Oakes (2007) report, most prominent educational organizations associate strong reform models with broad access to college-prep courses and the success of all demographic subgroups in them, rather than only students from elite, college-going backgrounds. Some analysts warn against a narrow understanding of
“college for all,” which typically concentrates on getting all students on the path to a bachelor’s degree. For example, Rosenbaum and Person (2003) see “college for all” as a focus that can reduce educators’ views of possible transition pathways and constrain the type of information students receive about postsecondary options, the type of learning experiences they have in high school, and the kinds of connections they build with diverse “sponsors,” who play a critical role in youth development. For youth from lower-class backgrounds, extra-familial sponsors likely play an integral role in “facilitating social mobility” (Furstenberg, 2006, p. 12). Stern (2009) believes high schools must provide students with high-quality experiences in workplaces and communities, as much as classrooms, “to better achieve the goals of preparing all teenagers for civic participation, economic self-sufficiency, and further education” (p. 231) and, ostensibly, to greatly enhance the potential for youth to gain traction and enter networks that support postsecondary transitions.

A key theme of literature focused on youth and work development is the need to enhance academic experience, but in a manner that builds upon traditions where effective mentoring, worksite linkages, and other forms of preparation for further learning have been strong (Oakes & Saunders, 2008). Educators and economists alike argue that for youth to gain security under volatile social and economic circumstances, and to acquire knowledge and skills needed to participate in civic life in all of its increasing complexity, they must be prepared to learn across the lifespan. What it means for a person to be prepared and what role schools can play to foster preparation are at the heart of much of the school reform literature and debate. The work of researchers who study late modernity and “risk society” provides perspective by situating debate about optimal
forms of curriculum within discussion of broad-scale, institutional change, and the ways in which dynamics beyond schools are redefining youth development processes.

**Risk and Youth Development**

German sociologist Ulrich Beck (1992) coined the expression “risk society” to highlight, in part, the unpredictability and social instability produced as national economies have shifted from production to service, and have become increasingly bifurcated in the process. From a “risk society” perspective, modern, industrial nation-states rooted in the production of goods have been qualitatively transformed as flexible capital and cross-national business has come to characterize economic life. As economic activity has been uncoupled and disassociated from nation-states, control and regulation over any particular economic project has become far removed from the people who are most immediately and directly involved in it. Under such conditions, Beck argues, the individual’s position in a system of production has become less constitutive of identity than one’s position(s) in relation to the risks (to security, health, well-being, civic recognition, and more) and opportunities that new systems of exchange, regulation, and mediation are producing. Beck suggests that experience linked to life in an industrial economy produced particular meanings related to class, gender, race, age, region, and culture, which in turn influenced how particular forms of identity emerged. The move into late modern conditions shapes new economic and citizenship roles and identity processes, and these all influence youth trajectories and development.

Numerous researchers, over the past two decades, have documented the impact of these “new times” on educational systems (see Hull, Zacher & Hibbert, 2009; Cohen, 1999; Brown, 1997, Gee, Hull, & Lankshear, 1996). Contemporary youth researchers
analyze patterns related to family formation, entry into the workforce and the nature of work experiences, learning in and out of schools, and cultural experience specific to young adults. Many claim that young people’s passage from childhood to adulthood has become fractured, ambiguous, and non-linear as a result of the distinctive economic, political, and cultural shifts that have occurred over the past several decades (Arnett, 2000; Chisholm, 1999; Flanagan, 2008). At the same time, theorists draw attention to the impact that social class continues to exert, leading to more refined formulations that recognize that “opportunities may now be more extensive in certain areas and the windows to them may now stay open longer, but capitalizing on them is still critically dependent on the resources available to take advantage of them” (Cote & Bynner, 2008, p. 263).

As instability and a lack of durable meanings related to self and notions of future trajectories become entrenched, analysts claim the “biographical project” has come to play a central role in youth development. The concept of the rising importance of biography in risk society offers a contrast to the idea that socialization emerges, rather lockstep, through children’s and youths’ movement through established channels of development, and the established notions of class, gender, national identity, religion, and more produced by them – an Eriksonian model that has long shaped transition discourses largely around psychological themes. Risk society theorists propose that the maintenance of the social no longer stems from the reproduction of traditional units of identity, such as class, and thus no single “social narrative” can be understood as constitutive of the individual. Rather, the individual is the primary unit of production and reproduction, a condition Beck refers to as “radical individualization.” On the one hand, this theory
supports the idea that individuals require freedom to select among and combine multiple options to construct a meaningful, “choice biography” existence (Beck, 1992, pp 135-136). There is a positive sense of openness, possibility, and creativity to be exploited within this perspective (Besley, 2002; Griffin, 2001; Heath, 1999).

On the other hand, these conditions can generate rampant individualism disconnected from any idea of a collective good. The bleak side of individualization is unchecked individualism, the “disembedding” of people from social narratives without any form of re-embedding in a collective project (Harris, 2004, p. 4). Here, inequality can and often does thrive, eroding the benefits of choice and opportunity that a loosening around traditional identifications might offer. Beck calls this duality a condition where the “individualization of riches” coexists with the “individualization of poverty,” disrupting the progressive potential of individualization (p. 102). Flanagan (2008) sees in this situation the tendency for young people to internalize new social conditions as “private anxieties” and for institutions to pathologize youth who struggle as deficient and at-risk, leaving intact narrow and inflexible aspects of institutional experience that create conditions of struggle (p. 210). Kelly (2001) asserts “the consequences [risks] have for individual biographies emerge as ‘no longer just events and conditions’ that are visited upon individuals. Rather these risks emerge as the result of individual decision making” (p. 26) [italics added]. All of this produces a particular logic about agency and structure that can seem intractable.

Choice and Responsibility

Clearly, part of “risk society” involves the risk of being an actor who is positioned within an open system of proliferating choices and opportunities, where hedges against
inequality are lacking or difficult to sustain. To Beck, the neoliberalism of the United States, and the changed social democracies of Europe that have fostered neoliberalism and encourage the fragmentation of social welfare systems, defines this form of risk. He sees in them the risk of “atomization” rather than more positive “experimental form[s] of individualism” (Beck & Willms, 2004, pp. 80-81). Negotiating a “risk society” well requires that individuals learn to position themselves to face consequential forms of change across the lifespan, while it also requires governments to make the commitment to mitigate the social ills individuals can confront as they navigate such uncertainty. Beck states,

The generalization of the individualization process confronts us with the problem of generalizing basic security so that more and more people have access to the prerequisites of a healthy individualization…What we have to figure out is how people can be compensated for the extreme insecurity of their private lives…by being provided with medium- or long-term basic security as a backdrop. (Beck & Willms, p. 82)

Youth studies researchers examine the impact of risk conditions on young people, and attempt to make sense of how youth biographies – and youths’ constructions of their biographies -- might simultaneously be influence through unparalleled access to choices about how to grow-up, and unequal access to opportunities to engage some choices effectively. Furlong & Cartmel (1997) refer to the paradox of being free to create a lifestyle, yet condemned to do it under the constraints of stratification, as “structured individualization.” With intensive focus on youth to make effective choices, there is a need for educators and others who work with young people to help them cultivate strategies for “active” rather than “passive” -- or Beck’s “healthy” --- individualization (Evans and Furlong, 1997). As Harris (2004) notes in her remarkably comprehensive study of young women, neoliberalism’s most insidious impact might well be its ability to
position them as “can do” and “at risk” at once, the ultimate winners of an arguably post-
gender era, and yet the ultimate losers in a global economy that fosters increased agency 
for some women, increased poverty for many others, and conflicting messages overall 
about the role of women in late modern society (p. 62).

The paradoxes facing educational systems become clear, as well. Governmental 
and community systems need to be structured to attenuate the social ills individuals 
confront as they navigate such conditions of uncertainty within a framework that defines 
each person as ostensibly self-generating both a personal outcome and a social position 
(Beck & Willms, 2004, p. 82; Grubb & Lazerson, 2004). The possibility looms that some 
curricular forms might serve some youths well, but serve others quite poorly, depending 
upon the notions of rigor, preparation, and future opportunities that any particular young 
person develops across the contexts of learning and development s/he experiences. In this 
regard, the potential role of work-oriented education for generating resources in youths’ 
biographical project of development, particularly the development of competence for 
navigating risk society, cannot be underestimated. The prospect that work-oriented 
learning contexts might offer opportunities for expansive literacy practice, through 
curriculum integration and other pedagogical forms, needs to be investigated. Finally, in 
low-income, rural regions that offer youth few “intermediary” resources for 
postsecondary learning (Snyder, McLaughlin & Coleman-Jensen, 2009), it may be as 
efficacious to strengthen resources within existing institutions – such as secondary CTE 
and its affiliated adult education programs, and community colleges – and to enhance 
resources that play a role in young people’s growth, but perhaps have not been identified 
as resources for the development of work-related competence and further learning (e.g.,
religious organizations, community-based planning and development organizations, online and distance education resources, etc.).

Summary

Much of the risk society research relevant to the themes of my study has been conducted in national contexts (UK, European, Australian) with social welfare and educational systems and histories that are quite different from the U.S. situation. Minimum school-leaving ages have been on the rise in these countries and work for young people has become scarce, making it urgent for national leaders to develop new channels for learning than what has existed historically. Particular class relations and identities central to cultural life figure prominently as topics in such research, and policy analysis related to the impact of new educational initiatives are common. Attention to older youth, adults, and work-oriented learning are common as well; all are areas with more extensive practice and research traditions than in the U.S., and each offers a unique window into the tensions created through individualization processes under neoliberalism.

In the U.S., where we grapple with closing achievement gaps and devising systems of accountability for schools, we give broad-stroke attention to social class effects but put little into building safety nets, especially as children grow older and the burden of development shifts evermore to the individual (Furstenberg, 2006; Grubb & Lazerson, 2004). Yet class issues are not at all difficult to discern when looking at vocational education, particularly in struggling rural areas. The dilemmas, opportunities, and paradoxes facing students like Walter, the iconic figure of Nagle’s study of vocational education featured earlier in this chapter, are representative of many of the
themes central to risk society research and theory. The role of work-oriented learning in the biographical development of youth needs to be studied in situ, not only in relation to standards for academic reform and strategies for delivering curriculum, but also as part of the array of options youth may or may not encounter as potential resources for their development, in particular places where they grow up (Corbett, 1997).

A premise of curriculum integration, as I discuss in Chapter Four, is that blending academic and vocational learning creates favorable conditions for the development of a new type of learner, a young person who is unfettered by past practices of ability-based grouping, tracking, and other practices that typified the “sorting” ethos of modern schooling. This goal appears to mesh well with the aim of adolescent literacy researchers and educators who demand a shift away from philosophies of correction, of fixing the deficits of individual learners, and urge that we move towards the creation of learning environments that marshal multiple ways of knowing, doing, and being literate, since civic participation demands it. Doing so, many suggest, will help to orient discussion towards the broader conversation about socialization in risky times that undercuts all educational practice.

I identified theory and research to frame the present study with each of these themes in mind, with an aim to interrogate macro-micro dimensions of CTE policy and its effect on literacy teaching and learning, in sites where norms of practice, and notions of youth development and transition, are being redefined and reformulated.
Chapter Three  
Research Methods  

Work with Rural Youth in CTE  

Several years prior to conducting this study, I worked as the director of a career education program for teen women who were interested in learning about non-traditional trades and technology jobs. Many of this program’s participants also were involved in a school dropout-prevention program for which I worked as a school-based tutor and advocate, and, eventually, served as program administrator. Through all of this work, I ended up spending a great deal of time meeting with students in regional vocational schools, referred to as “BOCES” or “Tech Centers” by educators, and simply as “BOCES” by students. Many students in our programs attended BOCES programs. BOCES guidance counselors and teachers became close allies of our work. The experiential, career focus of BOCES frequently offered students new ways to see themselves as learners, and, for a good number of them, provided a positive step into the future beyond high school, one they had not experienced all through school.  

Linking students to BOCES programs was not always straightforward, since pursuing vocational studies carried the risk of becoming known among peers by the pejorative label of “Bo-tard.” Already at the social and educational margins of school, some students rejected the BOCES option out of hand. If they did not end up leaving school altogether, many students in our programs finished school in the “local” track, taking basic courses that were not part of the college-prep “Regents” system (I discuss these terms in Chapter Four). Different groups read into/onto BOCES a range of needs,
fears, concerns, and desires. Despite this complexity, BOCES could be a refuge from the monotony and difficulty of daily school life for youth seen as at risk of failure: a place to be treated as an adult, as many students described it, and as a colleague, as I frequently witnessed. It also could be a potential economic lifeline for students, particularly rural poor and working-class youth, and particularly if they had not fared well academically.

Echoing what Nagle (2001) noted in relation to her long teaching tenure in a comprehensive vocational school, linking students to BOCES also carried the risk of reinforcing the notion that BOCES was the only way certain students could, or should, move through high school. In our programs, we tried to work against the expectation that all “at risk” youth somehow belong in a vocational track.

The complexity that characterized BOCES and the condition of rural youth who had a tentative connection to academic learning in school led towards the present study. By the late 1990s, debate over the mandate that all students pass a series of Regents-level courses and exams in order to graduate had come into full swing. I had moved into work with a “Bridge” program linking high school vocational students with a two-year college, work that made it clear to me that students with inadequate literacy backgrounds faced great struggle in college, in spite of the vocational aptitude, interest, and investment in further learning they might have brought to college.

By 2005, the debate about the all-Regents mandate largely was over, a fait accompli for the State, yet BOCES still seemed to be under construction, with administrators and teachers trying to figure out the role of BOCES in a climate that stressed college-going for all and had ratcheted-up college-level course demands. I learned about the effort in some BOCES Technical Centers around the State to pair-up
English and vocational teachers, to redesign BOCES courses so they included more reading and writing, and even to develop vocational courses in ways that would enable them to offer students their final unit of academic credit in English. These moves seemed progressive and sensible, given the Regents policy context and the general discourse about what it meant for young people to make effective, postsecondary transitions, which often translated into a need for students to wrestle with curricular forms viewed as college preparatory.

**Pilot Study**

I conducted two pilot interviews within Holmes County to explore how these new moves were being enacted in our locale, and to add to the perspective I had gained based upon my previous work. One of my interviewees, Amy, was a high school Social Studies and Special Education teacher who worked closely with students who struggled in English and Social Studies courses. Some of her students were identified as learning disabled, and others were seen as at-risk of Regents course/exam failure but were not formally classified. Many of her students attended BOCES. My other interviewee, Sue Dutra, was the principal of Rural Tech, a focal site in my study. Sue became a focal participant of the study, as well. Formerly, she had been principal of a small high school as well as a secondary-level, content-area teacher. Interviews focused on how each person viewed the literacy challenges facing junior and senior-level students they knew, in light of the new graduation requirements, and how each viewed the prospect for strengthening students’ literacy development through BOCES. I asked a specific set of questions about their views of teaching English within BOCES, either as a stand-alone
course or through team-teaching in BOCES courses, since that was a model I knew had been growing in popularity.

I was surprised to hear both interviewees speak skeptically about the idea of English-vocational integration. Several times, these educators stressed the need to be “realistic” (their term) about the learning and life needs of students who did not fit well with the typical academic mainstream of the high school. It was not realistic to expect all students to thrive in a college-prep environment, they said, nor was it realistic to think that teachers could teach in ways that supported all students in this environment. Both felt the nature of the curriculum (and tests) would change and become easier in order to accommodate the wider diversity of students required to pass them. Both also felt more students would flounder. In either case, offering English in BOCES or through BOCES courses seemed like a bad idea to them, because it would detract from the vocational focus and make BOCES less desirable to students. Also it would compromise the jobs of English teachers in the small, component high schools that shared CTE services centralized in Technical Centers, because it would remove students from English classrooms in the high school, enabling students to earn English credit in Rural Tech courses.

Amy stressed the fact that she offered intensive, individual support in literacy that would likely be impossible to do at BOCES, unless her job was redefined to place her in BOCES for part of each day. Sue emphasized her feeling that BOCES teachers would benefit from professional development help to strengthen how they support literacy among their students, within the context of their primary content foci. There simply was no more room in the curriculum, she felt, and the more that new mandates were added
without an overall change in the structure and schedule of the school day or year, the more difficult it was to press BOCES teachers to change their programs and teaching. These exploratory interviews alerted me to the tenuous status of academic-vocational integration as a construct for understanding literacy development for work-oriented youth in our era. I could not generalize from two interviews, for sure, yet they made me ever more aware of the need to study curriculum integration and youth transitions from multiple perspectives, rather than assume that the dual reform policy initiatives had been roundly embraced and enacted in consistent – and efficacious -- ways across the State. If I wanted to understand how educators defined and set out to address the literacy needs of work-oriented youth, within and across specific educational contexts and discourses that positioned students and issues, I needed to approach my research with a focus on relations between macro- and micro-level forces.

**Research Design**

**Research Questions**

This study examined how literacy reform was constructed in relation to CTE reform in the context of rural education in New York State. I focused on identifying and studying the relations among various discourses that shaped understanding of the need for literacy reform within CTE, in order to gain insight into practices affecting CTE students and teachers. The two major questions of this study were:

1) How has literacy reform been constituted in relation to CTE within two rural communities?

2) How does CTE enable and constrain youth literacy learning and development?
Overall Approach

This study began with a focus on Rural Tech in Holmes County, a region where I had worked in education for many years, frequently with work-oriented youth who were struggling to make their way through school and “into” adult life. I used an ethnographic approach for the overall design of the present study. This included observation of classroom instruction in a variety of CTE fields; semi-structured interviews with educators and students; and, analysis of policy documents, curriculum materials, and student writing. Senior-level students and their classrooms were the focus for my research. During the first few months of the 2006-2007 school year, I visited Rural Tech at least twice each week, primarily during the morning session when seniors were attending classes.

I heard about the literacy-related work of Regional Occupations during the third month of observing in Rural Tech. Several administrators in Rural Tech referred to Jim Green, director of Regional Occupations, as an innovator when it came to addressing literacy learning and teaching in CTE, though they were not quite sure exactly why he had this reputation. By this time, I had learned a great deal about the step-by-step process used in Rural Tech to enact particular dimensions of the 2001 CTE policy, especially the curriculum-mapping initiative that had been undertaken to get CTE programs certified under the State’s new Program Approval Process (these processes are addressed in Chapters Four and Five). Although Rural Tech transformed aspects of its programs under this process, it operated in a context where there also had been a de facto decision not to use the approach of integrating content-area English with CTE programs. This was
true despite the fact that such an approach seemed to be widespread in the State, and was being advanced as an optimal strategy for reform by State Education leaders.

Since English was offered through use of the collaborative teaching model in Regional Occupations, I was eager to learn about this strategy and its role in addressing CTE students’ literacy development. On this basis, I decided to pursue Regional Occupations as a secondary site—not to compare the sites per se, but to broaden what I was learning and thinking about with regard to the construction of CTE students’ literacy needs in CTE and educational attempts to address them.

For the remainder of the school year, I continued to visit classrooms and engage in conversation with students and faculty in Rural Tech. Using a sample of ten students as my guides, I chose which classes to visit and when, often based upon course activities these students made note of as typical of program instruction, or as standing out to them in some way as part of the learning environment and their experience of learning. I also visited Regional Occupations six times from December 2006 through May 2007, spending time in classrooms where English teachers were in active partnership with occupational teachers. In this site, the English team was my guide: I interviewed the teachers, and observed one as she taught to gain insight into the interactions that guided her approach to literacy instruction in CTE. I also interviewed several CTE teachers from the partner classrooms I observed; interviewed two students formally and spoke with others informally; and collected documents related to the enacted English curriculum within the school and the particular courses I observed.

In each chapter, I use material from all of these sources to examine how particular policy directives were interpreted and enacted in these sites. Using grounded theory
techniques, complemented by situational analysis, I made comparisons across levels (policy, school, classroom), types of data (interviews, observations, documents), and participants (administrators, teachers, and students) to illuminate: (1) how the literacy needs of CTE students were constructed; (2) how such constructions related to curricular designs to support student literacy development; and (3) how CTE students’ own understanding of their literacy strengths and needs intersected with concepts about CTE students as literacy learners and as subjects of reform policy, curricular, and pedagogical designs.

Sites

Rural Tech was the main site of my research. With a population of 110,000 and its nearest city (pop. 27,000) ninety minutes away, the U.S. Census Bureau classifies the towns that comprise Holmes County primarily as “rural fringe” and “rural remote” (United States Census Bureau, 2006). The county is among the largest east of the Mississippi in terms of land area. The presence of several colleges is an unusual feature of this rural county; they serve an important economic function since they are a primary source of employment and education for residents across a geographically-sprawling region. Within this historically dairy-producing and resource-extracting county are several mid-sized, multinational, manufacturing businesses. Small manufacturing and technical/trades service businesses also dot the landscape, but government, education, retail, and health services stand out as the major sources of jobs countywide. Compared to New York State and the nation, there has been a consistent and considerable increase in the number of residents attaining at least a high school diploma, yet, based on Census 2000 figures, 10% fewer residents (41.5%) attained either an Associate’s Degree or some
college, in comparison with state and national counterparts. Further, the poverty rate (15.5%) was higher and median household income ($34,247) lower in this county, compared to the State as a whole (Holmes County State of the Workforce, 2004).

Eight high schools in Holmes County sent approximately 250 juniors and seniors to Rural Tech each year, typically for a half-day spent learning in a core occupational program. It is one of several regional Technical Centers in Holmes County. In 2004, nearly 38% of all juniors and seniors of Holmes County were enrolled in CTE programs, including students with disabilities (New York State School Report Card, 2004). About 40% of Rural Tech’s students were identified as special education, with Individual Education Plan (IEP) designations ranging from learning-disabled to multiply handicapped. A growing number of youth (more than 40 in 2006-2007, the year of my study) had “transferred” into a GED class because they have dropped out of school. “Transfer” was the term Principal Dutrow wryly invoked, saying it was the State’s preferred way to discuss youth who had dropped-out; if such youth wished to earn a GED, they could only do so in a class designated for students under age 19, and they had to be enrolled in an occupational course as well (Interview, 6/06).

A mixture of small town and rural schools spanning two counties served Regional Occupations, along with one small city. Approaching Regional Occupations – near the state’s wine-producing area, several large and small cities, two interstate highways, and two Great Lakes – I was met with a feeling of both a melancholy, Rust Belt sensibility, and optimism about the vitality and beauty of the area. Some counties around Regional Occupations experienced population growth in recent years, although larger cities in the

1 Throughout, I refer to CTE students’ high school districts (where they spent the other half of the day) as “component,” “home,” or “sending” schools.
region have continued to struggle with persistent unemployment and population decline.

Still, when I first drove towards Regional Occupations, I had the sense that it is a rural area in an upswing, reinforced when I learned of the school’s pending move into a new, larger facility that would house alternative K-12 programs, expanded classroom and laboratory spaces for its CTE programs, and administrative offices. Approximately 300 students attended Regional Occupations, 20% of its county’s total population of junior and senior high schoolers (New York State School Report Card, 2004). Regional Occupations, like Rural Tech, had a burgeoning number of youth in GED programs, according to Principal Jim Green.

In contrast to Regional Occupations’ area, the local and regional economy of the remote Rural Tech remained tied primarily to traditional industrial and service sector jobs that may offer continuing opportunities, but with quite low wages, especially for the jobs requiring the lowest skill level. A 2004 local economic analysis of Holmes County found that employment had expanded in the area over the past twenty years, but wages had not kept up. As in many places, areas of growth included education, health, and government services. In these sectors, employers had more trouble filling available jobs that required higher skill and education levels than they did in those requiring less (Holmes County Workforce Investment Board, 2005).

Participants

**Rural Tech**

*Students.* Guidance counselors in Rural Tech provided me with a list of potential student participants drawn from the population of seniors for the 2006-2007 school year. The list they used had been developed for the school’s Special Education consultant, who
was responsible for guiding and monitoring students’ use of a Computer-Assisted Instruction (CAI) remediation program in literacy and math (I discuss the CAI initiative in upcoming chapters). Students were identified as in need of literacy remediation through CAI based upon their score on the Test of Adult Basic Education (TABE), which Rural Tech instituted a few years prior to my study. TABE was used widely in Holmes County’s Adult Education/Adult Literacy programs; levels of student performance are interpreted as a gauge of students’ potential to pass the GED. The county’s CTE administrative team felt it would be appropriate to use TABE as a way to quickly identify those entering 11th grade students who were below a 9th-grade level of performance. Those scoring at such levels were recruited into 30 minute/week sessions using the CAI program. Students were tested again near the end of senior year, to see if their TABE score had increased.

Approximately 30% of senior-level students were on the TABE list during 2006-07. Rather than reaching out to the entire cohort of potential participants, the school counselors opted to narrow-down the list based upon their perceptions of which might be interested in participating in my study. The criteria they used in this process included attendance and record of behavior; further, they inquired with students’ teachers, to get a sense of whether s/he would object if I observed in their classes, since I wanted to gain insight into the literacy demands study participants encountered in their CTE fields. Based on this process, the field was narrowed to 20 students, ten of whom consented to participate in interviews, allow me to observe in their CTE classes, and share relevant texts (primarily texts they were reading and/or writing, for school and non-school purposes). Ultimately, due to interruptions in students’ schedules for a variety of reasons,
seven students participated fully in semi-structured interviews. One student chatted amiably with me about her CTE course, but never returned informed consent paperwork and could not be part of the study. Two others did not want to be pulled-out from CTE classes for interviews; we spoke informally in the context of their CTE classes, since I observed a number of their classes.

CTE classes for the general study population included early childhood education, heating/air conditioning/ventilation, environmental technologies, culinary arts, cosmetology, health occupations, automotive technologies, and computer systems and repair. The seven focal students included three males (HVAC and environmental technologies) and four females (early childhood education).

**Educators.** Sixteen educators (3 administrators, 2 guidance counselors, and 11 teachers) were participants. The administrators included the countywide director of CTE; the principal of Rural Tech; and a Case Manager with Adult Basic Education and Adult Literacy. I recruited teachers based upon their connection to student participants, since I wanted to learn about the context for student experiences of the literacy demands of CTE, and the relationship between student perceptions of literacy and CTE, and teachers’ perceptions. I also recruited teachers who had large numbers of students on the list of CAI program remediation participants. Even if those students were not in my study, I wanted to learn more about teachers’ perceptions of students’ literacy in relation to the demands of their fields. Finally, I interviewed the GED teacher and teaching assistant, who shed light on the situation of youth, and literacy learning needs, in their classes.
Table A.1  Rural Tech Participants

<table>
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<th>CTE Subject</th>
<th>Students</th>
<th>Educators</th>
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</tr>
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<td>1</td>
<td>Yes</td>
</tr>
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<td>1</td>
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</tr>
<tr>
<td>Cosmetology</td>
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</tr>
<tr>
<td>Heating/ Ventilation/Air Cond. &amp; Refrigeration</td>
<td>2</td>
<td>1</td>
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</tr>
<tr>
<td>Computer Careers</td>
<td>0</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>*GED</td>
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<td>2</td>
<td>No</td>
</tr>
<tr>
<td>*Administrators</td>
<td>N/A</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>*Guidance Couns.</td>
<td>N/A</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>7</strong></td>
<td><strong>16</strong></td>
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</table>

Regional Occupations

Students. Since this was not a focal site for the study, I did not cast as wide a net for participants here as I did in Rural Tech. My goal was not to compare students across sites, or even to compare the sites. Rather, I set out to learn about this Technical Center’s rationale for pursuing English integration and to gain a sense of its impact. I observed a variety of classes based upon Principal Green and the English teachers’ suggestions for interesting cases in relation to literacy pedagogy. Some, such as Graphic Design, were new and were viewed as cutting-edge career courses, frequently geared toward students who intended to pursue college study. The integration of English was straightforward, in this case, because reading, writing, and communication studies were a naturally-occurring part of the curriculum at the level of program design and within the occupational field. Others, such as Agriculture, were more traditional Technical Center programs but were using the Integrated English approach. Still others, such as Heavy Equipment Repair and Operations (HERO), were noted as having an impressively strong
literacy thread supported by the CTE teacher, who had long taken it upon himself – long before dual reform was initiated – to stress reading and writing within his program, both for youth’s occupational development and for personal/civic growth.

Two students, a female (Health Occupations) and a male (HERO), were recommended as candidates for my study in Regional Occupations.

*Educators.* I interviewed the principal and five teachers in Regional Occupations. Three of the teachers constituted the English team, and I interviewed each of them twice. The other two teachers were in Health Occupations and Plant, Animal, and Life Sciences (a class I also observed). I spoke informally, as well, with teachers in HERO and Graphic Design, since I observed their classes.

<table>
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<tr>
<th>CTE Subject</th>
<th>Students</th>
<th>Educators</th>
<th>Observations?</th>
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<tr>
<td>Graphic Arts &amp; Communications</td>
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<td>Yes</td>
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<tr>
<td>Agricultural Tech</td>
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<td>Health Occupations</td>
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<td>No</td>
</tr>
<tr>
<td>Heavy Equipment Repair &amp; Operations</td>
<td>1</td>
<td>0</td>
<td>No</td>
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<td>Legal Studies (New Visions)</td>
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<td>(1 - CTE English teacher)</td>
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<td>English</td>
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</tr>
<tr>
<td>Administrator</td>
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<td>N/A</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2</strong></td>
<td><strong>5</strong></td>
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**Data Collection**

**Summer**

Data collection began in the summer of 2006, before school started in early September. I attended a faculty meeting at the end of the 2005-2006 school year, to
introduce myself and to present the purpose for my study. I did this at the suggestion of 
Sue Dutrow, Rural Tech’s principal, who wanted staff to know that I might ask to 
observing in their classes, and interview them and/or their students, in the upcoming year. 
Several people asked questions, mostly of a general nature. None expressed concern or 
opposition; indeed, at this point and throughout the following year, I never encountered 
anything except an open door and a “pull up a chair” attitude from teachers, who were 
eager to share knowledge about their classrooms and students, and, often, were interested 
in learning more about possibilities for improving how they addressed students’ literacy 
learning struggles.

During the summer, I spent several days in the office of the Holmes County CTE 
administrator, Janet Adams, who generously offered her time and access to program files. 
This was an important period for becoming intimately familiar with the recent history of 
reform that Adams had led, resulting in the development of program curricula that had 
earned the seal of certification approval by State Education. Adams took great pride in 
this accomplishment. She had developed the process used by all of the county Tech 
Centers, first to study, and then to re-design, their curricula, in accordance with the 
mandates of the 2001 CTE policy. It was painstaking work, pursued in a context where 
teachers sometimes resisted her presence and resented what they viewed as an intrusion 
by State officials who were bent on eliminating CTE, given the all-Regents graduation 
mandate.

Adams shared the multitude of documentation dicta issued by the State to track 
student progress in CTE, many of them translated into forms that required information 
that had not been collected previously (e.g., literacy achievement levels and performance
on academic exit tests). She allowed me to roam freely through her shelves of curriculum documents, so that I could gain insight into the specific learning objectives of various CTE courses and the ways that courses were designed to meet learning standards set by the State for a range of academic competencies. I explored reports developed for agencies that helped support teaching and learning at Rural Tech. I took notes about how curricula had changed to include academic competencies, and made note of broad patterns reflecting student attainment based upon the data reported to the State.

It was through my time spent in this part of the study year that I realized it would be beneficial to collect individual student data across the contexts of school and CTE program, to try to ferret-out literacy performance. I also realized it would be extraordinarily difficult to collect such data, since there was no system in place to collect or store this data. On this basis, I decided to pursue data collection for my study primarily through an ethnographic lens, and did not examine students’ transcripts and other records in detail.

**School Year**

**Observation.** During the first few weeks of school, I worked with the guidance counselors to recruit student participants. I began observing in classes, guided in my choice of classes by the list of students involved in the CAI literacy program. I visited classrooms that seemed to have a large number of students with such need, because I was interested in the nature of instruction and uses of text in these situations. As soon as the process for informed consent was completed, I began interviewing students, and added their classes to my rotation of observation if their classes were not already part of my focus. I only spent mornings at Rural Tech, since my focus was on seniors. During a
typical week, I spent at least two full mornings in classrooms or conducting interviews. During certain weeks, I spent an extra day, or an hour or so on multiple days, to attend special events, observe when teachers noted something coming up that they thought might be of interest, or to accommodate schedules. In January 2007, once I began traveling to Regional Occupations (located several hours from my primary site), I spent about one morning/week in Rural Tech.

When I observed in a classroom, I chose to sit or stand in a location that enabled me to see and hear, but was not intrusive in terms of project work or lecture. At times, I took notes during class, particularly when students were taking notes. Mostly, I engaged students and teachers in discussion, or listened and watched as they conversed, and I made field notes soon after, often in the guidance office or a corner of a classroom that had cleared for the moment. I collected instructional documents when they were distributed to students; drew floor plans of classrooms; and made sketches of texts, posters, and other ephemera in the classroom. This last part helped me to remember how seatwork and lab work were conducted – and how they were and were not connected -- in different classes, and it helped me to analyze the range of text types in different classrooms, which constituted the textual environment students encountered beyond the course textbook and worksheets.

**Student interviews.** I conducted between two and four semi-structured interviews with each student, typically lasting 45-60 minutes each. I used a digital recorder to tape each interview. Interestingly, this device fascinated my student interviewees, particularly those who subsequently spoke about their college plans. They wanted information about the recorder, which they viewed as an essential tool for lecture
courses (particularly those who said they struggled with reading expository text). In Rural Tech, I held a first round of interviews with students between October and early December. Follow-up interviews occurred throughout the year, both informally during classes, and with a final, capstone interview near the end of the academic year. In Regional Occupations, I conducted student interviews during the Spring; I visited there much less often than Rural Tech, and worked around off-campus practicum placements, and certification examinations held in May.

I used a list of interview questions for all initial student interviews, with questions focused on students’ interest in CTE, whether the program met their expectations, experiences as learners in CTE and academic courses, and literacy history and practices from childhood to the present. In the case of Regional Occupations, where student participants were identified not due to their classification as struggling with literacy, I concentrated on issues related to their experiences of work with texts and other practices of literacy in CTE, academic classes, and work-related sites (linked to the CTE program). In second or third interviews, I asked students to provide insight into the literacy demands of the CTE course; to share information about texts characteristic of their CTE and academic study, as well as non-school activity; and to discuss their future plans, especially in light of their perceptions of their strengths as learners and their need for support as learners.

**Educator interviews.** In this category, I include interviews with CTE administrators, as well as a Case Manager in Holmes County’s Adult Education and Literacy program. I held one, semi-structured interview with all educators, and several with some of them, depending upon the need for follow-up after observing in classes,
interviewing students, and reviewing documents. A mixture of life historical and pedagogical questions characterized these interviews. I wanted to find out how and why educators made their way into CTE, and used conversation about this as a context for questions regarding the literacy demands of their courses, relationships between these curricular demands and the career fields tied to the programs, their perceptions of student literacy needs, and the situation of dual reform. With respect to this latter issue, I posed questions about the all-Regents graduation requirements, the initiatives that enabled CTE to offer students the potential to earn academic credit, and more. My goal, in these interviews, was to gain a broad picture of CTE practice, and to hear about how teachers in distinct fields were trying to address literacy in their curricula. (See Appendix LR)

Although I was not able to transcribe all interviews immediately, I listened to them soon after they were conducted, and took notes that enabled me to write memos about major issues and themes. Based on these notes, I made decisions about classrooms I might want to visit for observations, and other educators I wanted to speak with on a formal or informal basis. I shared tape transcription duties with two professional transcribing companies. As soon as transcripts were available, I read them for accuracy, comparing them with tapes, and used them for coding.

**Data Analysis**

**Grounded Theory**

Grounded theory was the primary method used to analyze data in this study. In grounded theory, researchers use a specific procedure of recursive coding to develop conceptual density and theoretical insight, moving through sources of data using the constant comparison method to draw out major overlapping and divergent themes.
Grounded theory entails three levels of data coding: 1) *open coding*, to capture recurrent themes, images, questions, symbols, words, phrases, and practices; 2) *axial coding*, to dimensionalize codes and pose logical relationships that link concepts developed through open coding to broader categories needed to test and extend hypotheses; and, 3) *selective coding*, to conceptualize and dimensionalize codes more substantively around dominant themes, which enables researchers to propose models with explanatory power (Strauss, 1987; Strauss & Corbin, 1990; Evans, 2002, esp. chapters 8 & 9).

I did not set out to propose a new typology related to CTE and student literacy development. I was interested in finding a way to articulate and interrogate the discourses that were affecting policymaker and educators’ notions of youth literacy needs, to understand how the degree of overlap among them influenced the approaches they took, or decided to avoid, to address literacy within CTE. Further, I wanted to situate, within this discussion, the understanding of CTE students themselves, especially those who had been identified as struggling when it came to literacy practices. Two strategies, as follows, were helpful for using the comparative analysis techniques of grounded theory to understand practice both in the sites studied, and in relation to the rhetorics of youth-adult transition-- and CTE and secondary reform--that influenced how policy was perceived and enacted.

**Life historical data.** Many questions in both student and educator interviews were life historical in nature, largely because such questions provided entrée into conversation about participants’ literacy learning histories and current practices, occupational aspirations, and experiences on the job (including experiences of literacy use on the job). All of these elements represented threads related to the two questions
central to the study. Additionally, life historical data had purchase because it enabled me to put my inquiry into conversation with similar, non-U.S.-based research that has emerged around “post-compulsory” youth, as I explore in Chapter Two. In such work, biographical accounts have been critical for gaining perspective about how work-oriented youth negotiate opportunities for learning, career development, and participation in civic life. The life history/biographical dimensions of my interviews with students and educators helped me to understand and make visible the meanings and values participants attributed to CTE, literacy, schooling, rurality, and the connections they saw between and among these topics.

Document analysis. During the summer of 2006, when I interviewed the Holmes County CTE administrator and gained detailed knowledge of the reform strategies undertaken there to comply with the 2001 CTE policy, I also collected and analyzed policy-related materials related to CTE reform. Primarily through Internet-based research, I located New York State Education policy texts, memoranda and meeting notes, websites, CTE evaluation reports, and newspaper articles. These documented both the evolution of the 2001 CTE policy, discussion and findings regarding its implementation and effects, and controversy related to aspects of the policy. Few of these addressed literacy, per se. Given the move to encourage academic-occupational integration, however, it was possible to code these sources in terms of the perspectives they offered around CTE-academic relationships, and then to draw from these views to consider implications for supporting CTE students’ literacy development.

Discussion of curriculum integration – hopes for it and concerns about it – often hinged on views that various constituents held about CTE students’ interests, needs, and
future plans as learners (and workers). Primarily, literacy was addressed in terms of subject area English in the documents I studied, since the integration of English (and other academic subject area) credit took precedence as a strategy for CTE reform. As I continued collecting and studying documents throughout the year, I searched for themes related to the use of the terms “English,” “reading,” “literacy,” or some other term entirely, to refer to development of student practices in reading, writing, speaking, and listening. I wrote memos to compare my findings from such analyses with field notes and coded interview transcripts, to search for patterns related to the construction of CTE student literacy need; the literacy demands of varied CTE courses and the occupational fields to which they were linked; further learning environments, literacy, and student preparation for them, and more.

**Situational Analysis**

I used situational analysis as a complement to the constant comparison analysis approach of grounded theory. Developed by Adele Clarke, a feminist sociologist and protégé of Anselm Strauss, situational analysis is designed to help researchers notice and analytically account for the myriad factors, and interactions among factors, that produce social action, as well as those factors that prevent action from taking shape. These factors include human and nonhuman elements, discourses, flows of power, and more, all at play in fields that need to be located in time and space. Situational analysis, Clarke (2005) asserts, compels researchers to interrogate “Foucaultian flows of power in discourses” in relation to the particular “actions and practices” of a problem being studied—again, in a particular location and time (pp. 298-299). In other words, it is a technique that aims to make the scrutiny of multiple and complicated levels of influence
impinging upon a situation the essence of the problem at hand, rather than being the noise that obscures a true problem from being seen and able to be analyzed.

“What to study next?” was a question I asked myself throughout the year of data collection at the heart of this project. I felt strong in my understanding of theoretical sampling and was committed to using it to guide and help me to frame my emergent analyses. At the same time, I knew that theoretical sampling, alone, would not enable me to make use of the knowledge and experience I brought to the project. Nor would it help me to account for the weight of those sociologically opaque “forces” at work: contingencies that may not have been brought to light through participants’ direct statements, or through visible actions I observed, but were a clear and evident part of the situation, ones I thought I could account for as influences on action (or lack of action). Activities and practices structured in specific spaces reflect particular beliefs about students and their needs, and grow from the contingencies that enable some forms of practice to thrive while others cannot. Situational analysis helped me to excavate latent and naturalized views of knowledge and intelligence within school reform discourses, including the CTE discourse focused on curriculum integration. This approach was useful for articulating, based on my data, how particular views about what it takes to make effective transitions beyond high school were constructed and distributed through particular policies, and through views of the literacy development needs of youth that were related both to policies and other factors.

Layered notes. On a systematic basis as I conducted field research, I followed the grounded theory practice of writing memos to consider the implications of what I was learning about literacy reform and its relationship with CTE reform, comparing data
elements through coding and working towards ever broader, conceptual frames to think through the problem. As I expanded the reach of my data collection to include Regional Occupations, I needed a strategy, beyond writing memos, for bringing together data elements and articulating tensions and insights. It was easy to lose sight of a thread or idea as I moved across levels of understanding and sources, even though the memos and lists of codes helped me to organize data and ideas. I would literally see a snippet of text or field note drift to a file folder as I struggled to find a central place for it in a memo, because I could not weave it into the thematic focus of a piece. I felt this was due, in part, to some of the counterintuitive perspectives I was uncovering, especially in relation to views of the idea that literacy within CTE was best addressed through the paradigm of integrating English as a content area into CTE courses.

To deal with this problem, I first made use of a low-tech, note “layering” technique. I used a spiral-bound notebook with two unique features: each page had a left column block that was unlined, and a larger block to the right that was lined. The notebook used sheets of varying sizes, which could be easily removed and re-inserted in other parts of the notebook (or another notebook entirely). As I composed memos based upon coded transcript excerpts from interviews, observations from field notes, and notes related to documents, I began literally to layer data elements, moving sections of notes from one text to another spot in my notebook. Doing so enabled me to study discrete elements of data side-by-side with other elements. Even if such data chunks were seemingly unrelated based on site or source, I was able to think about interrelations that I had not considered through the open coding and memo-writing processes alone. This functioned, for me, as a form of concept mapping, achieved through the physical
manipulation of data in my low-tech notebook. It proved useful for establishing some working hypotheses, as I moved towards situational analysis.

**Analytic Maps.** Working from the layered notes and memos, I created maps of data, from “messy” and “ordered” situational maps, to “social world/arena” and “positional” maps. In the “messy” situational map (Appendix A), I sought to visually lay-out the entirety of the problem in terms of identifying topics, subject positions, discourses, and tensions. This map includes a range of elements that were relevant to the problem space of my study: individuals (students, teachers, administrators) and groups (curricular departments, organizations); policies; social roles; participant perspectives; histories; discourses, and more.

Corralling these elements into the structure of an “ordered” map (Appendix B) enabled me to categorize and classify these elements. In doing this, I clustered some of the elements from the messy map, making analytic decisions about how and why to bring elements together in terms of what I understood about the situation I was studying. This classification process helped enormously, because it allowed me to put my stacks of coded material and memoranda into an organized framework, thus offering a scaffold for description, analysis, and argument that I was beginning to develop.

Perhaps the most difficult map to create was Appendix C, the social worlds/arena map. Trying to bring all layers from the analysis into the common – and readable - visual space of a two-dimensional page proved challenging. The most important part of this map, I discovered, was laying-out the relationships between and among arenas, social worlds, and organizations. It was through thinking about the nature of the overlaps, separations, and negotiations that analysis of data led me to document on this map that I
actually came to “see” the problem of my study with greater precision. Arenas (“Schooling,” “Workforce Preparation,” “Policy”) are indicated by the large ovals with solid outlines; social worlds are ovals enclosed by dashed lines. Elements in rectangles represent particular collectivities or organizations related to particular social worlds/arenas. Dashed lines indicate negotiations that effected certain forms of action, were hoped for in order to create social action, or were resisted in part or whole.

I found it rather straightforward to move toward the final step of crafting a positional map (Appendix D), which I had sketched at the outset as a way to keep in mind some of the tensions at play. This positional map is one take on the entire situation. I focused on the conditions of possibility for literacy-in-CTE, as a product of (a) interactions between policy and discourses about occupational-academic connection (vertical axis: from separate spheres to fully integrated), and constructions of responsibility for literacy development/integration (horizontal axis: from individualist/student responsibility to institutional). These are broad categories to label axes of this map, but they ended up being the most evocative, for me, in terms of capturing the practices produced certain positions and possibilities. I wanted to consider these in light of risk society-oriented youth research; to think about this conceptual frame in relation to particular moves and decisions about literacy made on behalf of CTE youth, by CTE youth, and with constructions of CTE youth in mind.

**Summary**

Rather than explaining the situation of literacy reform vis-à-vis CTE reform on the basis of regularities across cases, my analysis came to focus on what meaning I could draw from varied interpretations related to policy, history, social reality, and more, to
discover why and how these forces coalesced to produce cultural practice. Analysis of the relationship between literacy reform and CTE reform needed to account not only for diverse values around literacy and youth development, but also for the distinctive nature and roles of CTE in particular locations, affected by particular histories and sensibilities. In Chapters Four through Seven, I unpack these claims through presentation of findings, with specific attention to the relevant policy history, enactments of policy in each study site, and effects in relation to actors (teachers and students) and actions (curriculum and learning).

As I spoke with CTE educators about literacy reform and the all-Regents graduation reform, they repeatedly made reference to the need to be “realistic” when it came to designing literacy environments to support youth development, and to considering youth transitions after high school. Against the discourses of “college for all” (Rosenbaum, 2001); the perils of tracking (Oakes & Saunders, 2008), and even of the advantages of academic-occupational integration as offering a superior, progressive design for vocational education, these educators articulated nuanced and specific perspectives regarding youth whose future they saw as vital to the communities they valued. They struggled not to make tangible the obvious presence of social class in young people’s development (it already was quite clear to them), and the effects of limited social welfare support, but to do something with such insight – with the contradictions of everyday life facing youth who struggle as students but are told they need more and more schooling if they expect “to make it.” This, to me, was captured through the educators’ notions of being “realistic” and “making sense.” The weight and presence of this theme
helped flesh-out the analyses I pursued, as I hope will become clear. I return to and provide further discussion of these concepts in Chapter Eight.
Chapter Four:

**Contexts for Literacy in CTE under Dual Reform**

Policy is both text and action, words and deeds, it is what is enacted as well as what is intended. Policies are always incomplete as far as they relate to or map on to the ‘wild profusion’ of local practice. Policies are crude and simple. Practice is sophisticated, contingent, complex and unstable. Policy as practice is ‘created’ in a trialectic of dominance, resistance, and chaos/freedom. Thus, policy is no simple asymmetry of power: ‘Control [or dominance] can never be totally secured, in part because of agency. It will be open to erosion and undercutting by the action, embodied agency of those people who are its object.’ [Clegg, 1989: 193] (in Ball, 1994, pp. 10-11)

The varied approaches to literacy teaching in Rural Tech and Regional Occupations, the two sites of my study, offered an object lesson in the “sophisticated, contingent, complex, and unstable” nature of policy implementation referred to in the quote above. Differing contexts for literacy that emerged were the result of two distinct policies in New York State, the 1996 Regents graduation policy and the 2001 Regents CTE policy, as well as the unique histories and topologies of each site. In line with federal school reform logic, State leaders advanced the two policies as overlapping initiatives that would support the State’s interest in promoting academic rigor and expanding the reach of the college-prep curriculum for all students. I refer to the situation produced through this policy context as “dual reform.”

The integration of academic and occupational content evolved as a key tactic for strengthening work-oriented courses in CTE under dual reform, positioning CTE as a constitutive part of the Regents academic mission. On a local level, my data suggest these well-reasoned actions have had some positive effects in CTE. This also was the
finding of an independent, statewide evaluation of CTE following the implementation of the 2001 policy (MAGI, n.d.). But the State’s actions also have placed CTE educators and students in paradoxical positions, as CTE has come to serve in three roles: (a) as a laboratory for educational transformation, (b) as a refuge for students confronting a new set of academic requirements that regulate their paths towards graduation, and (c) as a release valve for school systems required to engage more students in the project of “college-prep” learning.

In some respects, complementary aspects of these agendas have made it possible for CTE institutions to contend with this situation. Contradictions across these agendas also exist, however, and they have produced tension and difficulty for educators trying to conform to the dual reform framework. This chapter presents a policy history and examines the paradoxical impact of dual reform in New York, offering a perspective that is necessary in order to understand the manifestations of reform in local school sites.

**Frameworks for CTE Restructuring in New York State**

**Defining Integration**

“Integration” is a term that has figured prominently in educational research about “learning for work” since the late 1980s (see, for example, Grubb, 1995a, b; Little, 1995; Stasz & Brewer, 1999). In recent literature, it refers to two main trends: (a) forging a pathway through secondary-level study by structuring coursework so that students combine college-prep academic with challenging CTE courses and thus graduate prepared for college and career; and (b) restructuring work-oriented courses (trades, service, and technical courses historically known as vocational education) by embedding academic concepts in them and/or making explicit the conceptual underpinnings of the
broader occupational fields of which specific courses are a part (Stone & Aliaga, 2003). This latter approach seeks to broaden CTE so that it focuses less on imparting skills and more on providing relevant, interesting, career-related contexts for learning—contexts through which students can do hands-on work while they examine the more abstract concepts characteristic of “academic” study. Grubb (1995a) and Lewis and Kosine (2008) characterize this shift as one of learning “through” occupations rather than learning “for” occupations.

In New York, high school reformers essentially fused these two definitions through the 1996 and 2001 initiatives. Hitching CTE reform to the Regents graduation policy, a “college [prep]-for-all” standard (cf. Rosenbaum, 2001), the 2001 CTE Regents policy institutionalized a process for strengthening CTE, particularly through the development of CTE courses that integrate academic and occupational learning standards and, under certain conditions, offer students the possibility of fulfilling academic as well as occupational graduation credit requirements. Students’ potential to gain dual credit in this manner evolved as the central pillar of the State’s goal to align CTE and academic reform. It made it possible to advance CTE as enhancing learning for those who had traditionally pursued work-oriented studies, and to market it as potentially appealing to those who had not—both students defined as college-track and those in the “dead end” general track (Grubb & Oakes, 2007; Oakes & Saunders, 2008). The dual reform effort has earned New York national recognition (Meeder, 2009).

Generally acknowledged as a sound pedagogical strategy, integration heralded a shift in perspective about the purposes of work-oriented learning and the learners who participate in it, as much as it altered curriculum and teaching. In this regard, integration
and dual reform have signified an end to the historic divide between academic and vocational pursuits in secondary education, and the beginning of a new type of learner, one who embodies the “hyphen” of academic-occupational studies. This is a not a new idea. For decades, projects that advance this new construction of the learner have existed in Western nations. This is especially true in nations that have long grappled with a deteriorating labor market and social safety net for youth, such as the U.K. and Australia (Cohen, 1999; Kelly, 2001). For American youth who face an unstable economic future, navigating a position that places one simultaneously in-between, and outside of, the traditional boundaries of “academic” and “vocational” domains is sensible and appealing. It requires individual fortitude and extensive social/structural support to do well (Rosenbaum & Person, 2003; Kenny, Blustein, Chavez, Grossman, & Gallagher, 2003).

Although reformers in New York suggested that the goals for student learning and development under dual reform were one and the same, in that they aimed to place all students on a common path to graduation, with a goal of college-going at the core, some participants in my study objected to this assumption. Dual reform had not, in their view, challenged the continued reign of the Regents, its influence in defining the scope of concept study deemed academic, and its discursive dominance as it has been held up as the primary symbol and vehicle of systemic improvement. All of these raised issues doubt about whether State reformers truly were committed to supporting CTE students’ work-related learning interests. These are students whom most of my participants viewed as benefiting from combined “academic” and “hands-on” study. Yet, many expressed concern about whether CTE’s work-readiness and experiential elements could be
sustained under dual reform, with its emphasis on academic integration defined in particular ways that continued to privilege the “academic” over the “hands-on.”

Some policy scholars echo these concerns. Analyzing arguments around the reauthorization of the Perkins Act, the key federal CTE legislation that ultimately was signed into law as Perkins IV in 2006, Richard Lakes (2007) notes:

Strengthening CTE at the federal level through NCLB [No Child Left Behind] standards, neoconservative legislators charged, would remove faddish curriculum offerings—considered to be applied pedagogy and activity learning—and introduce identifiable core academic indicators and industry performance standards as well as mandated model sequences of courses, this latter measure meant to facilitate the articulation of statewide secondary-level reforms within the transfer function to college. (p. 113)

Innovation in CTE is not enacted in a vacuum. Rather, reform debates illuminate different, often divergent, views about what is valued as an appropriate focus for teaching and learning at the secondary level (Rose, 2004; Darvin, 2004; Jury, 1999). Ultimately, discussion of improving CTE centers not only on practices of curriculum, but also on representations of knowledge and notions of what youth need in order to make effective transitions “into” adult life. With NCLB framing the debate, “Time will tell how CTE fares in the policy machinations over rigorous and challenging curriculum in the high school,” (Lakes, p. 117). As the consequences of the all-Regents policy and its impact on CTE continue to unfold, the same sentiment can be applied to New York State. It is in this context that I examine the State’s focus on curriculum integration and its role in dual reform.

**College for All: The 1996 Regents Graduation Policy**

Strengthening CTE through the integration of academic and occupational content and pedagogy is a decades-old idea. It is one that has been developed successfully both
in comprehensive and occupationally-focused schools across the United States (Stern & Stearns, 2008). In New York State, integration as a curricular strategy must be understood as having two reference points. One is the general idea of integration advocated by teachers and researchers, such as Grubb (1995a), Grubb and Associates (1999), and Perin (2001). Another is a particular notion of integration as something that can support the movement to de-track high schools, shifting them away from sorting processes that have defined some students as college-bound and others as work-bound. In New York, such differentiation historically has been demarcated through one’s study of “Regents” or “Non-Regents” curricula (and, by extension, through being a “Regents” or “non-Regents” student).

The Regents system has existed since the early 1900s. Although it has changed during this long period, it emerged a key figure in discussions of comprehensive school reform in the mid-1990s. On the heels of 1980s-era, national crisis reports decrying young people’s weak preparation to confront the challenges of economic globalization, New York policymakers, led by newly-appointed Commissioner Richard Mills, sought to extend the college-prep standard of the Regents diploma to all students (Sipple, Killeen & Monk, 2004). This interest led to the 1996 Regents Graduation policy, which required that all students attain a Regents diploma in order to graduate. The mandate effectively eliminated the two-tiered system that had enabled students to take subject area courses either for “local” or “Regents” credit. “Local” and “Regents” were labels that differentiated course content largely around students’ interest or plans with regard to attending college, notions and assumptions about their ability to do so, or a combination of these factors. Students who opted for “local” credit earned a “local diploma.” To earn
this diploma, they took typical subject-area courses that were part of the academic core in a comprehensive high school, and they completed a set of “basic skills” exams called Regents Competency Tests. Local-credit courses could vary widely in content; Regents Competency Tests were used to demonstrate student proficiency in reading, math, and writing upon high school graduation.

In contrast to the local credit/diploma system, the Regents diploma has long served as Mills referred to it, as the State’s educational “gold standard,” signaling high schoolers’ readiness for college-level study (National Association of State Boards of Education, 1997). Student success in Regents courses and tests function, currently, as the premier symbol of a school’s capacity to deliver a college-preparatory education to its entire student body, a central tenet of NCLB. In fact, performance on Regents exams in English and Mathematics have come to serve as the metric for determining New York’s secondary-level compliance with the provisions of NCLB. According to Sipple, Killeen, and Monk (2004), phasing-out the use of competency tests in favor of the Regents end-of-course exams for all students contributed to New York’s second-place national ranking in the 2004 Education Week “Quality Counts” report on systemic “standards and accountability” improvement in the United States (p. 144). Reformers rate end-of-course exams more highly than competency tests because, compared to competency or comprehensive/general knowledge exams, they “allow for a more in-depth assessment of how well students have mastered course content and how the data might be used for interventions” (Center on Education Policy, 2008, p. 36).

As the Regents graduation policy took hold, what students needed to do in order to earn a Regents diploma became oriented around completing a sequence of courses and
end of course tests in five content areas (English, Math, Living Environments, Global Studies, and US History), and required at least 22 credits overall. A minimum of 14.5 of these credits needed to be in core academic courses (New York State Education Dept., 2005, p. 8). These requirements have been phased-in over time to account for school-level factors that have affected implementation. Most critically, support for teachers facing heterogeneous groups in Regents-level courses emerged as a challenge, since non-Regents-level courses were slated for elimination.

State Education also has held in place the lower passing score, or “cut score,” option for school districts. The cut score determines whether a student has passed an end-of-course Regents exam; a score of 65 has long been used as the passing cut-score. The State has permitted districts to decide whether they still want to grant students local diplomas if students have participated in Regents courses, but earn below 65 (though at least 55) on some of the end-of-course exams. Districts also can require that all students earn 65 or better on these exams, effectively eliminating the local diploma option. In 2005, State Education officials further elaborated this option by creating a matrix that details what students entering grade 9 in various years must do, in terms of Regents courses and exam scores, in order to graduate. The system gradually reduces the allowable number of exams to which the “low pass” standard may be applied, leading to a date (currently 2012) when all students will be expected to pass all required exams with a score of 65 or better. An additional provision – the “safety net” – has allowed districts to continue to use the Regents Competency Tests for students with identified disabilities. These students still must take Regents courses, but they may take competency tests rather
than end-of-course Regents exams to earn the full course credit required for graduation; students earn a local diploma if they use this option.

In essence, the local diploma and safety net options have enabled the State to take steps toward leveling the playing field by requiring schools to include nearly all students in both the Regents course and exam processes, while giving local districts some control and flexibility to cope with the challenges of the all-Regents standard and consequence that all want to prevent and avoid: increased dropping-out by students who struggle to reach the new standard. Eliminating the local diploma option carries substantial risk, since it will establish a condition for graduation that some students still will find difficult to meet. Annually, policymakers have revisited the issue of the cut score and the future of the local diploma. According to Hemphill and Nauer (2009), it appeared to be a pressing agenda item for the Board of Regents in 2009-2010, since the initial, ninth-grade cohort expected to pass a full slate of Regents exams without a low-pass (55-64 score) option had just entered high school.

In my study, teachers and administrators raised an additional issue about the all-Regents push: the apparent simplification of curriculum to enable more students to be successful at the Regents level. Clearly, close empirical study about what it means for a student to pass a Regents exam is warranted: as more and more students are required to master Regents-level material, how do the gatekeeper tests linked to Regents courses change, what do they then tell us about what students know and can do? Teachers need support to help foster a “high road transfer” of knowledge, in which “individuals develop high-level constructs and then apply them to new tasks” rather than merely “memorizing procedures to the point of automaticity [i.e., low-road transfer]” (Solomon & Perkins,
The State has established a sort of weigh station through its “differentiated
diplomas” (Grubb & Oakes, 2007, p. 19), adjusting demands and allowing a gradual
process to take hold, primarily in relation to the exit exam issue. The State has balanced
the safety-net and low-pass/local diploma options with other forms of differentiation
designed to benefit students at higher achievement levels, as well. For example, students
can earn an “Honors,” “Advanced Regents,” or “Advanced Regents with Honors”
designation on their diploma. “Advanced Regents” indicates that a student took all
required, Regents-level courses and 8-9 Regents exams; interestingly, it also stipulates
that students must have earned additional credits in a sequence of courses to include
foreign language, CTE, or the Arts (General education and diploma requirements, 2010).
The proliferation of special designations even extends to CTE itself, with the “Technical
Endorsement” affixation on diplomas available to students in State-approved CTE
programs who pass Regents exams as well as course/industry-related Technical
Assessments.

Differentiation has taken shape in relation to course offerings as well, despite the
spirit of the all-Regents policy. For example, in addition to Advanced Placement and
International Baccalaureate courses, and as a corollary to earning the Advanced Regents
diploma designation, many schools offer courses labeled “Advanced Regents.” This title
distinguishes such courses from the now-ubiquitous Regents courses that are required for
all learners. Even so, Regents courses still pose difficulty for some students. In a pilot
study for the present study, Amy, the English and Social Studies teacher introduced in
Chapter Three, described her “Regents Comparable” or “C” classes in the following way:
I have very small groups….I use the 11th grade curriculum, however the students I have are generally students with learning disabilities or at-risk for drop-out, so I don’t do as much as the other 11th grade teachers, as far as I tend to skip some stuff here and there. I don’t read as much in my English class as they do. I tend to stick to like bigger pieces, because even though they’re not regular Regents curriculum, they still are required to take the Regents [exam]. (Interview, 6/06).

Buoyed by the opportunity to provide extra support in small group settings to some students who had been faring poorly in heterogeneous classrooms, Amy’s description illuminated how the “safety net” and local diploma options came to define her approach to teaching in this particular setting. She focused on preparing students as well as she could for both sets of tests. For instance, students with disabilities in Amy’s classes needed to be prepared to take the State competency test in January. Amy then focused on Regents content in the Spring, to ready students for the Regents exam in June. If students had passed the January competency test, they would finish the year knowing they could earn a local diploma, regardless of whether they passed the Regents exam in June. Amy noted that many students failed even the competency test by just a point or so, and therefore had to re-take the test in August or the following year. Facing these possibilities with her students, Amy exclaimed, “I just feel bad for this population of students because they’re over-tested. Not only do they have to take the Regents, they have to take the RCT [Regents Competency Test]…and these are the kids that are known poor test takers, but yet we require them to take all these exams” (Interview, 6/06). (The RCT was an exit exam that was being phased-out as standards were raised and the all-Regents mandate took hold.)

Whatever the 1996 policy reflects – an egalitarian vision of policymakers, a “cookie cutter approach,” as Rural Tech principal Sue Dutrow referred to it (Interview, 11/28/06.), or some type of combination –the State clearly will not retreat from it, as
indicated in the Center on Education Policy’s national report on exit testing (2008). New York, in fact, appears to be well ahead of many states in using end-of-course tests as the reference point for exit exams. That the exams reflect relatively high-level course content bodes well for the pursuit of equity and deeper learning through this reform, according to observers such as Grubb and Oakes (2007). At the same time, they, and others, warn of the need to identify specific ways that these goals have been articulated with career preparation policies and practices, since serious reform in this area has long been absent beyond the level of rhetoric. In New York, the 2001 CTE Policy set out to forge change in this regard, using the new Regents standard as a lever to encourage systemic reform in CTE.

**College and Careers? The 2001 CTE Policy**

The 2001 Regents policy for Career and Technical Education followed directly from the 1996 Regents graduation policy. The CTE initiative referenced the new graduation mandate to advocate for systemic change within occupational education—and, no doubt, to try to guarantee the survival of occupationally-focused learning in general, in light of the Regents emphasis on content-area academics. The Policy set out the terms for districts if they wished to shepherd CTE programs through a Program Approval Process. In its Perkins IV Five-Year Plan, New York State Education officials describe CTE under the new conditions as offering

…an enhancement that allowed flexibility in scheduling to allow students to complete a program of career and technical education study while meeting all new graduation requirements. The policy had a two-fold purpose of solving the problem of time conflicts and restrictions while upgrading the content of the courses of study. Most importantly, the policy established high standards that would increase the rigor of CTE. The approval policy structures New York State’s approach to developing programs of study. (*NYS Perkins IV Plan, 2006*, p. 21).
“Programs of study” refers to the Perkins IV mandate for States to verify that their CTE programs extend across secondary schooling to college-level study and industry-recognized credentialing, ending ultimately in “regionally-driven high demand, high skill, high wage occupations” (NYS Perkins IV Plan, p. 27). Under the legislation, each state must establish at least one full Program of Study. Responding to this directive, New York Education officials argued that its 2001 CTE Policy overlapped with these goals and guaranteed the State already had established a process to ensure academic rigor as a central feature of all CTE programs (or at least of all that opted to take their programs through the approval process, since it was voluntary).

As the State’s Perkins IV application language indicates, the Regents graduation policy foregrounded the need to support the academic achievement of more students, including students who traditionally had opted for CTE. Participants in the present study noted that, in their experience, these frequently were students who pursued a “local” rather than “Regents” diploma—a rapidly-fading possibility. Some noted this was the case because the distribution of credits and course scheduling conventions often prevented students, structurally and logistically, from pursuing both Regents course sequences and CTE programs. Some were glad to see things change so that the onus might be lifted from students to assert themselves either as “Regents” (understood as college-prep) or “BOCES” students; all, now, would be “Regents” students.

It is worth noting that Rural Tech participants, in particular, raised the point that rural students might face a unique hardship under the all-Regents reform, if they needed to travel out of their high school building -- and quite a distance -- to pursue CTE, which most would. As “Regents” candidates, they still must pass muster in courses and on tests
that, even with support, might require remedial follow-up or extra coursework, directly affecting their ability to pursue CTE. As I examine below, BOCES Technical Center facilities have long helped to meet economy-of-scale concerns for providing vocational education, especially in rural areas. Yet, it was this means of provisioning that some felt would be threatened under Regents reform, since resources might become concentrated in the high schools, the central sites offering academic courses and the coveted academic credits required under the 1996 graduation policy.

Historically, academic or occupational programs granted either academic or occupational credit exclusively. Policymakers argued that through curriculum integration -- embedding within occupational courses conceptual and theoretical content linked with academic, subject-area learning standards -- CTE would be upgraded overall. Further, by making it possible for students to earn, through CTE coursework, some of the academic credit newly required for all students under the Regents graduation policy, CTE would gain a new role and image as a valued partner in the Regents-dominant graduation system. In fact, a 2008 report, Retooling Career Technical Education, by the National Governors Association, lauds New York’s reform effort along these lines (pp. 9-10). To achieve success on the ground, however, CTE has needed to examine how it functions, particularly in relation to the mission and practices of the high school, and the policies and ideologies that shape it.


**State Certification of CTE Programs: Making Integration “Count”**

Academic-occupational integration emerged as a key strategy to improve CTE courses in New York State -- to focus instruction less on job-related skills, which some
critics saw as narrow and backward-glancing, and to concentrate instead on framing courses around the broader study of occupational fields. Proponents of integration hoped CTE courses would (a) develop a stronger focus on imparting theories and concepts central to occupations, (b) make use of multiple text types and practices of reading/writing to support knowledge and skills development, and (c) play a role in preparing work-oriented students for post-secondary formal education, as well as the workforce (Oakes & Saunders, 2008; Rose, 2008b). Developing integrated courses that granted academic credit would enable students to participate in a learning environment geared toward college-level preparation, and to acquire some of the credit needed under the Regents graduation policy, all without sacrificing student interest in CTE.

The 2001 policy recommended that CTE leaders take programs through the process of becoming State-certified by undergoing both internal and external review. To achieve this, programs needed to redesign course curricula to show that courses were sufficiently integrated – that is, that the concepts, activities, and assessments structuring them clearly demonstrated linkages between Career Development and Occupational Standards (CDOS) and subject-area, academic learning standards at the “commencement” (high school graduation) level. In the policy, this was described as a process of creating a “crosswalk” matrix, showing connections between and among content domains [i.e., occupational fields (auto body, cosmetology, health careers), and math, science, and English Language Arts]. Each item of the crosswalk was a unit or activity of the occupational course; the matrix thus showed how the element addressed academic, as well as occupational, learning goals. See New York State Education Department, “Learning Standards: CDOS Crosswalk,” for detail.
Educators created these curriculum documents as part of the internal review process they needed to undertake to be considered for State-sanctioned approval. Such review consisted of a self-study of the curriculum, conducted by teams of teachers and administrators of a particular high school or Technical Center-based CTE program, in consultation with CTE program advisory boards. Members of the advisory boards included relevant business, industry, and educational representatives. Self-study reports were forwarded to State evaluators for external review and “Program Approval” endorsement (or not) by the State Education Department.


Beyond assuring there would be a thorough blending of academic with technical concepts in all CTE courses, “integration” held the more precise meaning in New York’s 2001 policy of developing CTE courses that would enable students potentially to earn both occupational and academic credit. Although the 2001 policy did not require CTE programs to become State certified, programs could offer students the opportunity to earn dual academic and occupational credit toward graduation through CTE courses. Two conditions needed to be met, however: the program itself must have gained certification and the student seeking academic credit in the occupational course must have passed the exit exam for that field. For example, a CTE course that was approved as an integrated
course in a State-certified program could count for both math and occupational credit for an individual student if the student already had passed the mathematics exit exam (that is, the mathematics Regents exam). The additional, required academic credit would be situated within the CTE course itself—making that course an “integrated” one, designed and taught in a manner that thoroughly combined math and occupational concepts and met the expected learning standards of each domain. CTE programs could also petition to offer “specialized” courses, which also combined academic and occupational content but were viewed as academic courses within the CTE setting (New York State Career and Technical Education, 2005 Edition).

Integrated CTE courses offering students both academic and occupational credit needed to be developed by a “highly qualified” academic subject matter teacher (as defined in the NCLB federal law), working with the occupational teacher for the course (Field Memo 6/2008). The academic teacher must be “highly qualified” in the academic area for which academic credit will be granted in the integrated course, and the academic teacher becomes the official “teacher of record” for that course (ACTE, 2/09, p. 6). CTE programs must detail how faculty members plan to teach and assess integrated courses. Integrated courses are taught, as well as designed, in this manner because NCLB stipulates precisely what it means to be viewed as qualified to teach an academic or CTE course. A Bachelor’s degree and, in New York State, passage of the subject-relevant “Content Specialty Test” constitute the floor-level criteria for “highly qualified” designation in relation to teaching an academic course. For example, CTE teachers who were the sole instructors for a course would need to attain “highly qualified” status with respect to the relevant academic and the relevant CTE field – a high bar to reach in a
profession that includes many experts from industry who lack formal, higher education credentials at the baccalaureate level. Collaborative teaching solved this problem, but it has required resources and logistical support to enact.

My fieldwork revealed a variety of perspectives about the process of conducting CTE program self-study, whether such study (a) led to the creation of integrated or specialized courses or (b) merely supported the curriculum mapping effort required of programs for State certification, to demonstrate their adherence to the “crosswalk” curriculum ideal of merging CDOS and academic subject-area content at the commencement level of study. All of the administrators I interviewed saw the self-study process as a highly beneficial, progressive move for CTE. Rural Tech administrative leader Janet Adams’ statement typified the administrators’ view: “It is a wonderful process for evaluating your programs, because these teachers really worked hard outlining what it is they thought should be taught and asking people in business and industry” (Interview, 12/15/06). Some also saw it as a politically wise move because it helped to spotlight CTE’s interest in staying current in occupational fields, and supporting the larger framework of the high school [i.e., academic/Regents] program—fundamental, in the high-stakes academic climate, to the institutional survival of CTE.

Teachers, in contrast, held mixed views. Some were eager participants in the self-study process, while others questioned it or dismissed it outright. Skeptics were wary, as well as weary of what a veteran automotive technologies teacher termed the “ten year cycle” of reform, whereby ideas for systemic improvement were proposed and implemented each decade, followed by a decision to study the previous decade’s effort and, ultimately, to replace it with something new (or seemingly new). This teacher
expressed resentment over what he saw as intrusion by “the Regents” (meaning, the State Education administrative policymaking body) in occupational education. We spoke at length following a daylong, professional development program that I had attended as a participant-observer. The program, which this teacher praised, focused on improving students’ vocabulary, note-taking practices, and study skills within CTE. He felt he had made many attempts, over many years, to develop practices that would support the growth of his students’ literacy skills, including regular use of Daily Reflection writing journals and shared reading approaches in his classroom. In the dual reform climate, there was a narrow emphasis on defining the scope of student learning needs, he felt, and this actually curbed his ability to enhance occupationally-specific learning at an advanced level (conversation and field notes, 11/22/06).

For example, he and his colleagues had been waiting many months for a computer-based parts specification system that was in standard use throughout the industry, and in regional repair facilities. Learning how to use the system was an important aspect of developing a diagnostic lens, integral to their capacity to develop as technicians and to demonstrate high-level, marketable skills. This teacher’s frustration over the loss of control to define his curriculum goals and processes, and over a lack of recognition for his effort to support students’ literacy growth, illustrated the extent to which dual reform could be contentious and cause fragmentation regardless of the appearance of alignment or shared meaning ostensibly reflected through curriculum maps and crosswalks.

Still other teachers in my study expressed no view directly about the requirement that they show academic-occupational linkages (in crosswalks, curriculum maps, or
otherwise). Veteran culinary arts teacher, Ginny Jones, spoke with high regard for Prostart, an industry-developed curriculum that is structured sequentially to span secondary and post-secondary study. Describing her effort to address academic concepts within the culinary classroom, she noted that writing played a large role in the Prostart curriculum. She did not specify what forms of writing were included, but said she supported this feature of the curriculum because it enabled her to use the occupational context to strengthen student reflection and knowledge of tasks related to the field of study. Ginny also said little about the dual reform policy specifically, though she shared her concern over the realpolitik effects of reform, in light of the academic focus that she felt already was embedded within her program:

Well, we try to…the science, the math, the writing and the curriculum for the culinary: it’s hard to fit everything in. And if they do keep it at the school level, it will help us have more time to work on things that we have to work on right now. Because a few of the students say, ‘I come to BOCES to be able to work on hands-on, not to have school work,’ their perception of it, you know. (Interview, 1/5/07)

Basically, Ginny wondered how teachers could continue to support CTE students, particularly those who struggled academically and found a space of agency in CTE, if they felt pressured to cover more and different content, or teach in areas that they personally experienced as weaknesses or viewed as less vital to their occupational program mission?

There appears to be near-ubiquitous support in educational and policymaking circles for integration as the core strategy to improving teaching and learning, and to moving forward the agenda of work-oriented learning in the high-stakes, accountability-driven, academic climate of high school reform. Changes in Perkins IV around the use of funds could enhance schools’ capacity in this regard. For example, it would be helpful if
CTE funds could support students’ academic learning needs through tutoring, other approaches to remediation, and pre-college literacy exploration/preparation. The legislation, however, clearly states that funds must be used for occupational education.

The issues raised here lead to questions that are integral to understanding dual reform. In the enactment of policy and curricular integration, for example, should Rural Tech have focused attention on the need to grant a unit of credit in English? Did the English teacher-led literacy initiative of Regional Occupations (detailed in Chapters Five and Six) sufficiently meet the needs of learners? Did the lack of specific focus on reading and writing in a program such as Ginny’s Culinary Arts course mean she did not offer valuable literacy support to her students? How close, or far apart, were educators in Rural Tech and Regional Occupations, regardless of the institutions’ apparent fidelity to what are purportedly the ideal practices of CTE reform?

Questions and issues such as these index contingency and friction around how to define language arts, subject English, and literacy education as they manifest in secondary education environments, a point I explore in Chapters 5 and 6 (cf. Limbrick & Aikan, n.d.). Moreover, these issues reflect societal uncertainty about how to define and address the needs of youth, especially those youth whose interests and positions spill beyond the age/grade and other boundaries we are accustomed to using to make sense of literacy development, and to understand how literacy is related to youth transitions beyond high school.

**Locating Change**

In the case of dual reform, sites of change are significant on material, symbolic, and representational levels (Ball, 1994; Weis, 1990; Wexler, 1992). CTE students
traditionally have spent one half of each school day in occupational instruction, frequently in offsite Technical Center facilities that are separate from their high schools. Technical Centers, part of New York’s Board of Cooperative Educational Services (BOCES) umbrella, were begun in the 1960s. These Centers centralize vocational instruction and offer fiscal efficiency to local districts, since students from multiple school districts travel to each Center to participate together in a specific program of study. According to Mauhs-Pugh (2005), “As federal and state legislation during the 1960s and 1970s mandated an increasing number of specialized services, particularly vocational programs and services to pupils with disabilities, BOCES became the vehicle for providing them” (Encyclopedia of New York State).

Vocational education has epitomized to some what is wrong with American public education, not what is possible, desirable, or useful for contemporary young adult learners. Since its inception in the early 1900s, vocational education has been maligned as a lesser, if “natural,” option for some students, a view rooted largely in cultural prejudices against manual labor, conceptions of some forms of knowing (and knowers) as more evolved than others, and beliefs about people as constitutionally “booksmart” or “practical,” as if these were diametrically opposed (Darvin, 2004; Rose, 2004). Given this history, the use of centrally located facilities for occupational learning might be viewed as a mixed blessing for reform within CTE. At the very least, physically separate vocational education facilities might be viewed as reinforcing the “programmatic fragmentation” that has long beset secondary schools (Inger, 1993, p. 2). The high school has served as a site of material and symbolic significance, one that has intensified as a result of reform movements’ focus on academic rigor, accountability, and high stakes
(Lakes, 2007). With a history of tracking in American public education – with some students steered into vocational studies based upon race, gender, and social class prejudices of adults with the power to make such decisions – Technical Center facilities might be viewed with great suspicion as part of 21st century school improvement. Indeed, educating some students at facilities that are separate from the high school might be seen as a retreat from equity and progress, rather than an effort to support a variety of useful and interesting learning options for young adults.

Yet problems of separation and fragmentation have persisted within comprehensive high schools, even in those in the throes of restructuring efforts that ostensibly place “‘learning for work’” at the center of reform (Little, 1995). I raise these issues because of the variation in my two study sites – both “offsite” Technical Centers -- in the manner in which they have taken up the charge to integrate academic and occupational content. As I discuss later, integration has required collaboration between academic and CTE teachers, which rests upon shared definitions of what the learning goals of a particular course should be, not to mention time and funding for teachers to work together.

Integrated courses, however, may be a positive development not only for improving learning and teaching, but also for the role they play as a policy stopgap. That is, in light of the Regents graduation mandate, they have provided school systems with a release valve, shifting some of the weight of the requisite academic credit to CTE. From this perspective, integration has appeared to move in one direction only, with little mandated to change on the academic “side” to enhance college and career preparation. Flexibility arguments aside (as in the State’s Perkins IV application introduced earlier),
this is a move that has placed a new demand on CTE. It seems wise to probe exactly what key actors have done under the “integration” banner and what benefits students derive from the changes. Further, it seems critical to interrogate whether the resources directed towards this particular definition of reform have been used wisely, given students’ interests and needs as learners.

Many of those I interviewed stressed the importance of the offsite (non-“home” school) location for providing students with a second chance to gain competence and self-confidence as learners. They viewed Technical Center staff as a group that might harbor few prior notions of student ability and performance. Students offered a parallel view of these spaces as ones that help them to feel like adults, suggesting they both viewed themselves differently in Tech Centers than in high school and behaved differently as learners for this reason. Integration can thus function as a mobilizing and progressive force for CTE because it effectively modernizes and potentially destigmatizes vocational studies. Yet part of my research uncovered the destabilizing effects integration can also have, especially if the material resources to support it are unavailable, and/or educators prioritize institutional needs differently than the policies do. In this case, reformers would benefit from perspectives that recognize existing, well-functioning capacities and aim to foster growth in a responsive manner that makes use of them, rather than seeking to replace them wholesale.

Summary: The Policy Landscape for CTE and Literacy Reform

Occupational education in New York State is best understood through a “dual reform” lens, a heuristic that sheds light upon the interdependencies – and plain old dependencies – that have shaped recent occupational education policy and practice. Although it is
possible to trace the 1996 Regents graduation mandate and the 2001 CTE policy to their own distinct histories and to varied arguments about the nature and purpose of the high school, curriculum, and ideals for youth transition beyond high school, policymakers crafted the 2001 policy as a natural outgrowth of the 1996 policy. Thus, they effectively hitched CTE to a particular, academic upgrade effort.

Linking CTE reform to the Regents policy, policymakers advanced curricular integration as the primary mechanism for CTE reform, seeing it as the ideal mechanism to upgrade occupational studies, while also showing a State interest in sustaining CTE as a valid option for students with plans to enter the workforce, or work-oriented further learning, upon graduation. Never too far from view was the need to sustain CTE as a bulwark against increased school-leaving by students under the intensification of academic standards. The specific nature and effects of curricular integration across the diverse delivery systems for CTE in New York have not been widely studied since policy implementation in 2001. Although the decision to structure CTE reform in relation to the larger frame of graduation reform enabled policymakers to position CTE as a constituent part of academic reform, it was a move that also engendered doubt about the State’s interest and investment in occupational education itself. Other paths might have been followed to support student learning and to strengthen transitions to work, further learning, and civic life, without losing sight of the vision for equity and excellence at the rhetorical heart of the 1996, all-Regents graduation policy. For example, policymakers could have created alternative pathways to graduation that would have strengthened a range of options for students as learners, from the creation of new types of CTE programs and courses; to the development of work-based learning as a central feature of
occupational education; to the provision of customized academic, social, and personal support systems that would address the huge variety of strengths and needs among advanced high school students interested in work-oriented learning.

Additionally, policymakers could have developed mechanisms to ensure integration would be a two-way street, intended to infuse the traditional academic environment of the high school with occupational learning goals and pedagogies, as much as the reverse (infusing academics into occupational studies). This move would require that policymakers and educators take a serious look at the very metaphors and assumptions that shape how we organize knowledge and learning in and through schooling. Mike Rose (2008) perhaps puts this best:

To rekindle that imagination, we need to rethink our notions about mind and work, but, hand in hand, we need to reassess long-standing and seemingly self-evident distinctions between levels and kinds of knowledge. Certainly, distinctions can be made; expressions of mind are wide and varied. But there is a tendency -- in the school and in the culture at large -- to view all knowledge and skill associated with physical work as rudimentary, even primitive, "neck-down" activity. A related issue is that the traditional, and weighty, separations between "pure" and "applied" knowledge, between "skill" and "concept," between "theoretical" and "practical," tend to neatly segment a more complex reality. The more time I spend amid different intellectual disciplines and different spheres of work, the less sound I find these distinctions to be. They harden in debates over the purpose of education or in disciplinary and professional power plays, but they blur and morph into one another in actual practice, both blue collar and white. (p. 637)

As the findings from my study will demonstrate, the significance of strong local leadership, as much as policy mandates or “best practices” such as academic-occupational integration in CTE, must be recognized and should be a focus of the dual reform policy endeavor, particularly if a primary goal is to create effective contexts for literacy development in CTE. In my study sites, the effects of solid leadership were evident whether an instructional environment was quite similar to the model of bringing
subject area English teachers into CTE, or whether it deviated from such a template but systematically attempted to address the wide range of needs and interests within its walls. In both cases, educators wrestled with complex sociocultural, economic, and political conditions that could enable or constrain particular forms of practice from easily taking shape.

As the Regents and CTE policies have become entrenched, it appears that the task has fallen primarily to CTE students to manage the multiple, competing demands of dual reform, since they must figure out how to be the new Regents/CTE subjects implied by these policy discourses. In the following chapters, I explore how literacy learning was (re)structured in the two CTE sites of my study, and examine how the unique positioning of young people as the embodiment of academic-occupational integration could engender a wide variety of literacy teaching practices, and an equally wide variety of learning stances. Still, only some practices and stances appear to be valued under dual reform, an outcome that suggests many institutions, educators, and students are being shortchanged through the very processes constructed as the State’s active response to their needs.
Chapter Five

Enacting Dual Reform in Diverse Sites of CTE Practice

Implementing change related to the new graduation policy took shape gradually. By the late 1990s, educators, parents, and students across New York were expressing concern about the impact of the policy on student engagement and attainment (DeBray, 2005). Some protested the extra burden it placed on vocational education students (Zernike, 2001), while others lambasted the Board of Regents for creating a one-size-fits-all policy that could negatively affect students of all achievement levels by mandating they take particular courses and be evaluated in narrow ways (Perez-Pena, 2001). Critics urged the Board of Regents to consider an alternative route to graduation for vocational education students, one that would mandate them to complete some Regents courses and exams, but would also sustain a focus on the occupational learning goals at the core of CTE teaching.

The Board of Regents rejected the idea of having CTE students fulfill fewer Regents course and exam requirements – or take a lower academic credit load – than their non-CTE counterparts. It did, however, address critics’ concerns, developing a plan to strengthen and reconfigure CTE as a resource for student learning. The adoption of the Regents Policy on Career and Technical Education in 2001 signaled the shift in mission for vocational education in New York State, allowing students with an occupational study focus to use some of these courses (which were to be redesigned) to fulfill new academic requirements.
As I detailed in Chapter Four, the CTE policy stressed academic-occupational integration as the vehicle to improve CTE’s mission, programs, and image. CTE programs could pursue the “Program Approval Process” to alter curricula. Approval at the State level enabled programs to grant academic, along with vocational, credit, if particular conditions for content, instruction, and assessment were met. Advocates argued that this capacity to grant academic credit would spark improvement in CTE programs. Hence, the policy provided both a rationale to focus intentionally upon the academic concepts at the foundation of occupational study, and, through use of the program approval process, a means to do so.

An aim of integration effort was to forge an unprecedented link between CTE and the secondary academic program. By creating new ways for CTE to enhance students’ path toward graduation, the 2001 policy offered hope to those who feared the 1996 policy would lead to extensive school-leaving by discouraged students. Others insisted it was urgent for the State to initiate reform because they felt CTE would only remain viable if it shifted academics, alongside occupationally-specific training, to the center. Since establishing the 2001 policy, there has not been a parallel approach to CTE change on the academic side: integration has meant bringing academics into occupational instruction, rather than re-imagining ways that academic courses themselves could address occupational learning standards.

The capacity to grant academic credit in CTE has had paradoxical effects. It has distributed a resource to CTE that can elevate its image. An evaluation of the State’s reform effort indicates the policy has sparked creative approaches to occupational teaching that aim to draw out academic competencies more intentionally than in the past.
Yet, integration also placed CTE in the position of needing to address, directly and proactively, students’ academic development needs (particularly in relation to literacy and math/science/technology, content areas of focus for curriculum integration), a shift that has been embraced by some educators and resisted by others, for a variety of reasons (MAGI, n.d.).

This chapter describes how Rural Tech and Regional Occupations approached dual reform, looking specifically at the curriculum integration emphasis of the 2001 policy. I analyze the role of institutional culture in these sites in shaping diverse practices of integration. Integration as “remediation” characterized the reform effort at Rural Tech, while integration as “negotiation” stood out in relation to Regional Occupations. Both of these approaches fit the spirit, if not the letter, of reform stipulated through the 2001 policy. That they existed as implementation practices associated with the same policy illustrates the contingent and open nature of curriculum integration. Such openness supported a flexible and responsive approach to meeting institutional needs, but, as became clear, it also signaled instability in creating new approaches to engage students, address their learning interests, and meet their literacy development needs.

**Approaches to Academic-CTE Integration in Rural Tech:**

**Integration as Remediation**

**Roots of Reform**

An investment in academic-occupational integration existed in Rural Tech for a number of years prior to the 2001 CTE Policy. During the 1990s, Rural Tech participated in federally-funded School-to-Work and Tech Prep initiatives, focusing its effort on improving math instruction for CTE students. As a result, when the State
instituted the 2001 Policy, Rural Tech’s leaders felt the institution (as well as its two BOCES counterparts in the County) was well-positioned to offer the newly-required 3rd unit of academic credit in the math/science/technology (MST) domain throughout its programs. Addressing literacy was a different issue, since it would entail developing a collaborative effort with regional English teachers to offer a final unit of English credit. Area superintendents did not support this goal; thus, administrators decided to pursue other avenues to identify and address students’ reading and writing learning needs. None of these other efforts enabled students to earn academic credit in English, according to CTE administrator, Janet Adams (Interview, 12/15/06).

Math teachers were a part of the instructional landscape of Rural Tech when the 2001 policy went into effect. Under the aegis of the federal Tech Prep project, Rural Tech and its two BOCES counterparts had hired math specialists to design and teach “Tech Prep Math” in the early 1990s. This credit-bearing course could function as an alternative to math courses taught in BOCES students’ high schools. The interest in, and incentive for, high schools to support this arrangement, despite the fact that it would draw some students away from the high school math classroom, came from several directions. Both Tech Prep and its smaller-scale “School-to-Work” counterpart provided ideological and material support. Both emphasized the importance of enhancing math learning for CTE students as they moved toward workforce entry, and both provided funding to stimulate the development of projects at the local level. Additionally, mathematics standards and curriculum were changing in the State during the 1990s, and the 1996 Regents policy stipulated that all students eventually would need to complete a sequence
of Regents/college-prep-level math courses. Prior to this dictate, students were streamed into basic, non-Regents, and Regents-level courses.

Having onsite math instruction in CTE via Tech Prep put Rural Tech and its fellow Technical Centers in an advantageous position. Tech Prep math teachers experimented with curriculum, linking math and occupational instruction; this enabled teachers to tailor content and pedagogy to meet the interests and needs of CTE students—particularly students who had struggled with math in high school and were at-risk of failure due to the upgraded standards of the 1996 Regents policy. Students required to complete an extra mathematics course found they could do so within a relevant context of study and through a schedule that supported their occupational study focus, rather than competing with it. Strong performance in Tech Prep math also could benefit students in college: taking the course and doing well could lead to having the course count for prerequisite credit in some college programs, if the CTE program and its college counterpart had developed a secondary-postsecondary articulation agreement. Creating these agreements was a central aim of Tech Prep.

Thus, by the time that the 2001 CTE Policy was introduced, an infrastructure for academic instruction had been established within Rural Tech, in relation to math. The logical next step, according to administrator Janet Adams, was to develop within each curriculum program the means to grant students academic credit in the area of math/science/technology (MST), in support of the increased number of academic credits in MST required under the 1996 Regents graduation policy. To make integration work, Janet established a process for the onsite math/science teachers (who had been offering math instruction through Tech Prep) to collaborate with occupational teachers, high
school MST teachers, and regional advisory board members. Together, these teams reviewed occupational curricula and the Regents standards to figure out where sufficient MST instruction already existed within each course, and where it needed development.

Since the integrated course would lead to a third unit of academic credit, the MST content needed to be at the State’s “commencement level,” an advanced rather than introductory level. CTE programs needed to demonstrate how they would meet the precise number of hours of instruction in the math/science/technology domain that was required to grant commencement level credit. As Janet described it, “If we were coming up short, if it wasn’t at a commencement level, then we bumped it up…we redesigned [courses] so that they were a higher level” (Interview, 12/15/06). The collaborative planning process could lead to the conclusion that a course simply could not “bump up,” or integrate enough MST content at the appropriate level to meet State expectations. In one instance, a Rural Tech program was eliminated altogether for this reason. More frequently, Janet reported, redesigning curriculum entailed extracting from the curriculum those theoretical topics already present in relation to MST learning. Then, CTE and MST teacher teams would devise pedagogy and assessment strategies that reflected a coherent body of knowledge for student learning, and were capable of showing that students were engaged in MST-oriented learning that was the equivalent to a traditional, academic course. Doing this successfully would prove to be the linchpin of curriculum integration, since it would show that CTE courses could be made rigorous, and thus could impel “academic” as well as occupational learning.

As I discuss in Chapter Six, despite such changes, the need for students to have passed all relevant Regents exams related to the academic content embedded in an
integrated course, in order to earn the academic credit in the CTE context, puzzled and frustrated Rural Tech’s principal, Sue Dutrow. She cited cases of students who thrived in the integrated CTE course, but lost the opportunity to earn full academic credit because they struggled in what turned out to be a course that functioned as a prerequisite academic course. Alternatives clearly were needed:

For instance in CTE, a student we give them the 3rd credit of math and 3rd unit of science here. Well, a student could be successfully, or completing their CTE program here, getting that math and science, but at the same time having, have failed a science regents, and not be able to graduate. It would be nice to be able to take the life skill component [meaning the 3rd unit of math/science credit as it has been integrated into the CTE course], because it’s a recognized science credit, it’s a recognized math credit, and say, “OK, that can be in place of it. You don’t have to pass that regents exam.” I mean, I’m not sure. I haven’t really thought it all through. I just feel like, because no one is entertaining thoughts of doing anything different, so I don’t spend a lot of time thinking about what I could do differently, but I think there is a way that people could sit down and say, “OK, there is a different pathway to get that diploma.” (Interview, 11/28/06, pp 5-6)

Overall, Janet felt Rural Tech and its two counterparts made a wise decision to focus on the MST credit in response to the 2001 policy. Collaborating with MST teachers onsite in Rural Tech alleviated pressure that some CTE teachers could face if they were to be the sole designers, teachers, and evaluators of student learning in relation to integrated academic-occupational content. The effort to alter CTE also met with approval by sending school administrators, as Janet suggested:

We probably do the integration of math and science in CTE, as far as the application part of it is concerned, better than the home school. In fact, I had one of my principals say to me, ‘Could you come to our school and teach our teachers how to apply math and science so that it’s meaningful and real to the students in the classroom, because you do it in CTE everyday? (Interview, 12/15/06)

A Remedial Frame for Literacy Instruction
Despite the regard Rural Tech’s MST integration effort garnered, it left literacy issues unaddressed and unresolved. Rural Tech counselors and administrators took the position that CTE students with persistent difficulties in reading and writing would receive sufficient Resource Room or Academic Intervention Service classes in their home schools, in addition to their grade-level English course. Indeed, they had to believe this, since the message was clear in terms of component schools’ stance toward fiscal support for English-in-CTE. Although they had no formal connection to sending high schools in terms of systematically providing support for students with literacy struggles, some individual Rural Tech teachers and counselors did consult with sending school Resource Room teachers about student progress, most notably if an IEP was in place for a student.

Although Rural Tech could not redesign curricula and offer integrated English credit through its courses, an institutional effort was launched to identify and address expressed skill weaknesses of students. During the year of my research, Rural Tech experimented with a computer-assisted instructional (CAI) program in reading and math. School officials mandated use of the program for CTE students whose proficiency scores on the Test of Adult Basic Education (TABE) fell below the 9th-grade level upon their entrance into a CTE program in grade 11. Rural Tech chose to use this CAI program after finding that it seemed to help adults who were enrolled in adult basic education and literacy courses offered through its Adult Education division. Program Leader Ron Miller, a longtime literacy and GED teacher who was responsible for the CAI implementation in Adult Education, discovered that the CAI program boosted adult students’ vocabulary, word identification, and reading comprehension skills. It also helped address logistical issues in the rural area, since the program could be accessed
online as well as in regional locations that offered Adult Education classes (Interview, 11/27/06).

After learning about the apparent benefits of CAI for adult learners, Janet concluded the timing was right to invest the considerable funding needed to try the CAI program at the secondary level. Four factors led Janet to this decision: (1) Ron’s perspective about the beneficial impact of the program for adults; (2) the similar reading and/or mathematics TABE profiles of some secondary and adult education students; (3) funding and scheduling constraints that made it difficult to add staff or instruction to support struggling readers within Rural Tech; (4) the views of superintendents from sending high schools that English instruction was best situated in the high school rather than formally integrated, and offered for credit, within the CTE context. Through administration of an entry TABE at grade 11, use of the CAI program monitored by a newly-hired Special Education teacher, and administration of an exit TABE closer to students’ date of graduation, Rural Tech hoped to be able to demonstrate and document improvement in student literacy performance (as defined through CAI and TABE).

Whether the model of independent student use of the CAI program in adult literacy could be adapted to the secondary context, however, remained an open question, particularly among some of Rural Tech’s teaching staff. Administrators initiated use of CAI in Rural Tech, yet they did so without a systematic plan to study relationships between performance gains in the CAI program and the TABE, or CAI and course performance. Participants who discussed the CAI initiative hoped its use helped to reinforce basic skill development for students in need. They also expressed hope that it would demonstrate the school’s effort to address some secondary students’ skill
development needs (particularly in reading, as defined by the curricula/CAI program being used) and to assist students beyond the specific areas of learning in their occupational programs. If successful, this change would validate CTE’s role in supporting the academic focus of reform at the heart of the Regents graduation policy. Rural Tech administrators and counselors expressed urgency around the need to intervene in the year of my research, citing almost 1/3 of the junior class (more than 60 of approximately 200 students) as falling below the 9th-grade level threshold, typically in both reading and math, on the TABE assessment. Almost 40% of Rural Tech’s combined 11th and 12th grade student population formally fell into a 504 or Special Education category, as well (Conversation with Sue Dutrow, 11/26/06).

As I elaborate in Chapter Six, teachers had mixed feelings about the CAI effort, despite recognizing such need. Some were eager to try anything to support their students’ literacy development, but they also regarded the CAI approach warily since it resulted in students missing class for 30 minutes or more each week (the time they were engaged in their independent, CAI module work). Rural Tech’s guidance counselors also reported fielding complaints from parents who communicated their children’s dislike of being singled-out for remedial work, particularly since they viewed CTE as an opportunity to experience learning in a setting that was different than their high school. By the end of the experimental year of using the CAI program, it was unclear how and whether time spent translated into improved skill within CTE courses or elsewhere, since outcomes were not evaluated systematically. The administrative team was reviewing whether or not to continue using the CAI program.

Regional Occupations: Integration as Negotiation
Expanding a Culture of Collaboration

Although Regional Occupations also made inroads toward curricular integration in the 1990s by developing projects through Tech Prep and School-to-Work, principal Jim Green located this Technical Center’s reform roots in an earlier tradition of collaborative planning among schools, higher education, and industry across the rural/small-city region that encompassed Regional Occupation’s sending high schools. His own tenure in the system dated back to the 1980s, prior to the influx of Tech Prep or School to Work funds and ideology. It was system that he deemed “a culture,”

in this BOCES and in this county community, education community, that’s very supportive and very…and based on good communication, and really always has been. The culture that drives education is one of close-knit people understanding that the best thing is accomplishing for students in this collaborative manner….And that’s really been alive ever, I can’t remember it being a different culture” (Interview, 2/07).

For Jim, the impetus to enlarge the scope of occupational education emerged out of this culture, driven by the work of educators and business leaders who looked closely at labor needs and economic development trends, and tailored CTE programs to address them as best as they could. When Jim took the helm of Regional Occupations in the early 1990s, he did so with an outlook that stressed incremental and adaptive approaches to foster substantive institutional change. Following passage of the 1996 Regents graduation policy, this pragmatic philosophy led him to direct CTE faculty to redesign their courses so that they could offer students a single, academic credit (in math, science, or English) through CTE, as well as vocational credit. His aim was to prepare Regional Occupations for the impending, strong mandate for integration represented by the 2001 CTE policy,
which he saw looming on the horizon. By the time of the 2001 policy’s establishment, Regional Occupations already had made many

little nibbles in our budget to start hiring people…we started one year at a time, as much as the budget could tolerate, to add core academic support teachers to this campus. And that was very, very critical because we were ahead of the wave a little bit, so when the regulation hit in 2001, we already had a handful of academic people on the campus to assist. (Interview, 2/07)

Those “academic people” included math and science teachers, who offered curricular support in ways that were similar to Rural Tech’s Tech-Prep approach, as well as Social Studies specialists. Not every CTE student needed help with Social Studies, but some needed such support to strengthen their achievement in their home school class. Not doing so could cost students time and prevent them from attending Regional Occupations at all. By working strategically with its component high schools, Regional Occupations positioned itself as a resource that could help students juggle academic demands while sustaining their capacity to participate in CTE. These strategic “little nibbles” to the CTE budget thus bridged a logistical gap and built a foundation of goodwill across the academic-vocational boundary. Both turned out to be critical elements as the 1996 and 2001 policies rolled into the picture.

Facilitating CTE Access

In fact, goodwill and political exigency led to the creation of the Access Committee, a structure designed to prevent the turf wars that could arise as more and more CTE courses offered academic credit. According to Jim, the Access Committee addressed the question, “What can we [Regional Occupations] do to properly access students through career technical education?” He continued,

So we said, ‘We need people that build, you know, the architectural planners of those four-year schedules.’ So we brought in volunteers, guidance counselors.
Every component district volunteered to be on this committee. We started working with them and said, ‘Okay, we’re not so much interested in stealing your jobs, we’re interested in making sure the kids can access our career technical education programs now that we have increased graduation requirements. Give us some help. What do we need to do?’ (Interview, 2/07)

Initially, this committee focused on specific issues, such as the students who’d failed a year of Social Studies, were enrolled in two grades’ worth of Social Studies courses simultaneously, and who might need support to prepare for the Regents exam, newly mandated for all students through the 1996 policy. Such students found it difficult both to complete other academic courses and to attend CTE programs, and one solution was found in the decision to offer Social Studies instruction or Regents exam preparation at Regional Occupations. This alleviated the burden on home districts, and enabled students to take CTE courses of interest while also fulfilling academic requirements.

Based on the success of using the Access Committee to address these types of needs, Jim proposed offering additional types of academic support, which evolved into the staff positions in math, science, and English, in addition to Social Studies and Physical Education. As he put it, “…how can a home school or component district argue with the fact that a lot of these initiatives, in fact all of them, were their initiatives, their ideas?” (Interview, 2/07). Although these moves were supported within Regional Occupations’ network of component school partners, they still carried the potential to cause controversy, to be what Jim termed “a big political problem.” This was the case because they carried the risk of sending a message, as suggested earlier, that the Technical Center was interested in “stealing [the] jobs” of academic teachers in the high schools. Tackling curriculum integration under such conditions thus required Jim to construct it carefully and somewhat narrowly:
What we tried to do is look at the curriculum and make sense of it. Cosmetology, lots of technical writing, lots of speaking skills, lots of documentation records, a perfect fit, okay. In our machining course, okay, Math was a perfect fit. So we went at things that made sense. The idea, remember, is to allow the kid to earn the third credit, whether it’s Math, or English, or Science, okay, so they can come here and still stay on track….You [the CTE teacher] could choose what makes sense, okay. It’s not so much as one [academic course] or another, but is there enough in the curriculum or can you augment a little bit to warrant the credit [so] you don’t have to stretch the curriculum all over because it’s there, okay.

(Interview, 2/07)

The issue of constructing core academic integration within the occupational context in a way that would “make sense” stood out in Jim’s description of Regional Occupations’ implementation of the 2001 CTE policy. This vision meant that CTE retained a position of importance in the vision of integration, rather than being supplanted by an academic focus. But to “make sense” also referred to the need to strike a delicate balance between CTE and its component school districts. District-rooted, per-capita student funding “follows” students to CTE, providing a funding base that assists CTE with its staffing and program development--including the new staff and programs it might develop to support academic-vocational integration. Adding integrated courses certainly could help districts meet student needs under the new Regents graduation policy by providing contextualized academics within CTE, an approach shown to be motivating and effective for learning with work-oriented students and one that, increasingly, was touted nationally by researchers and advocates. At the same time, CTE also might be viewed as infringing on the home districts by offering a more appealing option that would siphon students away from their home districts, leaving core academic teachers with fewer students or, perhaps, classes to teach. To “make sense,” in this respect, thus meant showing component high schools that CTE was not out to “steal jobs.”
Although Rural Tech did not pursue curriculum integration as extensively as Regional Occupations, it is important to note the frequent reference to this issue expressed by administrators and educators in both schools. Rural Tech served a group of widely-dispersed component high schools, spread out over a considerable land area, a more sparsely-populated region than Regional Occupations. Losing too many full-time equivalent (FTE) students in a high school-based, academic, course could jeopardize a teacher’s full-time teaching load. Larger high schools with higher student enrollments overall ostensibly did not have to worry about this problem; consequently, its associated, regional Technical Center could pursue curriculum integration more freely. This political/resource dimension of curriculum integration must be understood as a key component of dual reform enactment.

With the structure in place, and the new 2001 policy on the horizon, Regional Occupations’ Access Committee members crafted a policy to regulate student enrollment in integrated courses at Regional Occupations. The policy was designed to shape, and limit, the conditions under which students could use those courses for academic as well as vocational credit. According to Jim, “The position was only if it conflicted with the students’ ability to come to this campus would they be registered for the integrated course” (Interview, 2/07). In other words, students might enroll in a course designed to offer integrated content and credit, but their ability to earn the academic credit in such a course rested with the sending high school and its scheduling practices. If a conflict did not exist that would prevent the student from enrolling in a CTE course that offered academic credit, it was expected that the student would pursue his/her CTE interest, and earn the relevant academic credit (offered in the CTE course) through the typical
academic course at the high school. However, if the only time available for enrolling in such a course at the high overlapped with a CTE course, the student could petition to use the integrated CTE course for academic credit.

This practice, Jim claimed, provided “alleviation of the home school’s schedule by providing at least one core academic credit” in each CTE program. His phrasing is noteworthy. In this statement, Jim acknowledged that the high school was faced with increasing pressure to support college-prep learning for all students. By building integrated credit into CTE, the high school could find some relief as it worked toward fulfilling this obligation. CTE was nobly placed in this picture as the agent of relief. Hence, positioning the integrated courses in this manner proved to be politically expedient. Yet, the situation also could send a signal to students that integrated CTE would be a secondary, rather than a primary, option for satisfying academic credit. Rather than functioning as an option students might choose, or be guided towards, because it best suited their needs and interests as learners – and mirrored the best practices touted nationally as part of high school and CTE reform – Jim’s description actually revealed the extent to which integration was a fraught, even delicate, endeavor.

Within the context of the Access Committee, focused on ways Regional Occupations could access students, access to curriculum integration itself was contingent, not absolute; a work-in-progress that was highly dependent upon ongoing negotiations and relationships, rather than an established and routine piece of the high school curriculum. These dimensions of curriculum integration became more evident in discussions with faculty in Regional Occupations.

**Looking Out for Literacy Learners: Advocating for Access**
As an integration model developed at Regional Occupations and new practices took shape, educators and students reached their own conclusions about the costs and benefits of home- or CTE-based academic instruction in meeting learning needs. Their conclusions did not necessarily support the Committee’s emphasis on access to integrated courses as something that followed the home district’s scheduling needs. Rather, some came to view it as more beneficial for students to work towards academic credit in integrated courses, regardless of the “alleviation” or relief the model offered to the home district. Some within CTE developed strategies to influence and challenge the existing system of access to CTE.

Nine component schools (one small-city school, and eight small-town/rural schools) sent students to Regional Occupations, each with its own scheduling structures and course offerings. On the CTE side, the CTE teacher figured out which academic credit to offer within a class. For example, an Automotive Technologies instructor would chose whether to revamp curriculum to meet commencement-level MST or English standards, so students could earn the associated unit of credit in that area along with occupational credit. CTE teachers were directed to focus on one academic area only.

Given this approach, some students in an integrated course might be from schools and situations that enabled and encouraged them to earn academic credit in the CTE course, while others were not. Of course, all students took the same CTE course and were greeted with the same expectations in terms of assignments. Hoping to help students leverage their access to academic credit within the integrated course, Becky Smith, a Regional Occupations English teacher, admitted that she took a proactive stance:

I tell the kids, I say, “If you’re not getting English credit here, then….” Sometimes I may encourage them a little more that I’m supposed to [to earn their
English credit in CTE] because it needs to fit into their home school first before they can take it here. If it doesn’t fit, they can take it here. But sometimes I encourage them and I say to them, ‘Look, you have to do this work anyway, ‘cause it counts for me and it counts for [CTE teacher]. SO it would behoove you to take the credit here so that you can free up some of your time and your home school.’ I said, ‘This doesn’t work for everyone, so you need to think about it’ (Interview, 3/22/07).

Becky concluded, “It doesn’t make a difference to me either way” since she and her CTE co-teacher approached all of their students in the same manner.

What is most important about this comment, however, is the specific context for it. Becky’s comment followed a discussion in our interview about the lack of contact she had with home school English teachers. She noted that she frequently tried to coordinate support for the struggling students in the CTE courses she co-taught, because they offered English credit. Many of these students were struggling readers and writers. Becky reported strong links with resource room teachers, if they already were involved in individual students’ educational programs, but she felt most English teachers were not interested in having such connection to her or the other English teachers at Regional Occupations.

Becky was the English “teacher of record” (a concept mandated by NCLB, through its “Highly Qualified Teacher” provision) only for those students whose high schools granted approval for them to earn the academic credit through the CTE course. In the case of struggling literacy learners in her courses who were not approved, and who therefore also took regular English classes in the high school, Becky related that she felt ineffective. She was stymied in her ability to meet the needs of those struggling literacy learners who enrolled in her co-taught courses, but who also took English in their high schools. An absence of collaboration between Becky and the high school English teacher
fostered this felt lack of efficacy. Such collaboration, it appeared, was not central to the curriculum integration effort beyond the level of institutional planning and access. Thus it made sense, from Becky’s perspective, to try to persuade students to figure out a way to make the integrated CTE course a scheduling necessity.

Under this logic, as the teacher of record for these students’ English Language Arts learning, Becky would be able to assess their needs, as well as plan and implement pedagogy to support them. She felt this would alleviate the burden students could experience if it fell only to them to make sense of their needs and development in reading and writing, across the distinct contexts for “English” instruction in which they participated (high school and CTE). This example of teacher-student negotiation around access to the integrated course had less to do with supporting the “relief” function of integration, as set out by the Access Committee, and more to do with redressing a the limited nature of what was meant by collaboration within the integration construct. Had there been a mechanism built into CTE integration that made routine collaboration between Becky and high school English teachers central to the project, the need Smith expressed to sponsor such subterfuge might not have existed.

As things stood, in addition to encouraging students to “need” the CTE English credit, Becky also tried to use gap times during the day (between classes, AM and PM sessions, or afterschool) to offer specialized and customized literacy support to struggling students (these are explored in Chapter Six). In this regard, and somewhat ironically, her actions more closely mirrored the practices of a number of teachers in Rural Tech, who also provided 1:1 support for struggling literacy learners, in the context of the CTE content at the heart of their programs.
Integration was invaluable because it placed Becky and other English teachers in the CTE classroom, giving them the capacity to work with students in a comprehensive manner that included: (a) teaching through a contextualized English approach, (b) assessing student learning of English “skills” (reading, writing, speaking, listening) in the context of subject matter of interest to students, and (c) seeing the work of integrated English count in the “high standards” academic credit system that was integral to attaining a diploma under the 1996 Regents reform.

In contrast to Principal Green’s explanation of the integration process emerging exclusively from what “made sense,” the structure of access to integrated courses did not make sense to Becky, because it created a condition for access rooted less in effective practice for student learning, and more in the politics of managing CTE and high school relationships. Becky thus made an effort to influence access to CTE. Her strategy implicated students themselves as agents of integration. Making integration function, in the end, required that students broker their English learning across CTE and school contexts. As Becky discovered, the notion that students brokered English learning in this manner extended beyond gaining access, as students shared stories of defending the rigor of their contextualized English study in CTE among high school peers enrolled in traditional, subject-area English courses (I explore this in Chapter Seven). By advocating for access, Becky became intertwined, if unwittingly, in an effort to position the integrated approach to English-in-CTE as valid and valuable within the academic system itself.

In an interesting way, Rural Tech evinced similar limitations and paradoxes. The CAI program added an intervention strategy for struggling learners within the CTE
context; many of these students participated in parallel types of intervention within their high schools. Yet, as Rural Tech Counselor Sharon Locks explained,

We just send the [CAI] results in the progress reports to the parents of the students who are in the [it] for a half an hour a week, and we certainly – we’ll probably communicate that at the next counselors’ meeting, of who’s in there and what they got, so they’re aware of it. But as far as coordination, that’s not part of the system, which is interesting, isn’t it? (Interview, 12/10/06)

The experiences of some Rural Tech’s students – who were not part of integrated CTE-English courses since they were not offered in Rural Tech, but who actively worked to “carry” literate activity across the boundaries of CTE and high school English – shed light on the issue of different ways to leverage CTE as a source for literacy growth. This dynamic is a focus of Chapter 7.

**Summary and Implications**

Expert discourse about what youth need to function well after high school has shaped understanding about the need to change literacy instruction within CTE. CTE educators in my study were sensitive to these discourses, because their work concentrated on teaching students practical skills for immediate gain, as well as imparting dispositions that would enable students to gain a degree of autonomy as they moved into adult life. These educators were eager to help their students translate what they learned in their courses into viable routes to work, and they were on the front-line of this effort through direct links to workplace experiences. At the same time, CTE educators expressed wariness about expert discourses, especially with regard to literacy. It was not always clear to educators that improving students’ literacy competence meant the same thing to them as it did to State Education policymakers, or even teachers outside of CTE. Further, CTE itself faced structural and funding constraints that challenged the vision of literacy
integration proffered by the State. The State held myriad goals with respect to CTE reform, some directly related to CTE curriculum and pedagogy, and some loosely related (such as providing a bulwark against school-leaving in light of the graduation mandate).

As I discovered in the two sites of my study, to establish and sustain literacy integration involved numerous negotiations. The capacity to offer integrated courses that would allow students to earn academic credit did not necessarily translate into an ability to define how best to address students’ developmental literacy learning needs. This chapter shed light on some of the district-level negotiations that existed in two sites to enact curriculum integration, and it provided perspective about the impact of integration on teachers and students. Chapter Six extends the investigation with a focus on the individual and collaborative work of CTE teachers (occupational and English) to create responsive literacy curricula in CTE, across the sites. The effects of such effort on student learning and development are the focus of Chapter Seven, which further illuminates the “brokering” work required of students, themselves, as they became the primary actors or agents of curriculum integration, moving between and among the contexts of CTE, traditional high school classrooms, and learning/work spaces of their futures, with literacy practice and identity a constitutive part of each domain.
Chapter Six

Teachers and Teaching Under Dual Reform

New York education policymakers did not issue strict guidelines about how to implement the 2001 policy to enhance academic rigor in CTE. Rather, as illustrated in Chapter Four, CTE leaders were urged to take programs through the Approval Process to become certified, and to create “crosswalk” matrices that showed how occupational and academic learning standards were aligned. Those programs hoping to award academic credit needed to meet additional requirements so that content specialists would be centrally involved in the design and implementation of integrated courses. In both situations, programs needed to show how occupational instruction aligned with the “commencement level” standards of related academic content fields. In English, these standards include a very wide range of reading, writing, listening, and speaking skills and recommended practices, suggesting that a variety of ways existed for CTE to show how it addressed literacy or would do so, under the reform mandate.

In practice, implementing reform could be a complicated endeavor. Oversight was needed within CTE to support curriculum development and to assess implementation. Support was needed for students who might struggle in programs whose curricula included new learning goals and increasingly included “academic” tasks. The collaborative teaching approach that emerged as a centerpiece of the 2001 policy required a staffing model and the support of CTE faculty, as well as faculty and administrators of component schools (in the case of CTE programs held in BOCES centers, rather than within a comprehensive high school itself). In relation to awarding English credit,
certified English teachers needed to be integrally involved in the design, teaching, and assessment of integrated courses offering English credit. All of these conditions led to what became an important question of my study: What capacity did the 2001 policy create, or not, to identify and address the diverse literacy learning needs of CTE students?

Decisions about the structure of literacy education within Rural Tech and Regional Occupations grew from school leaders’ and educators’ “reading” of relevant policy, their beliefs about the nature of literacy in CTE, their perceptions of their roles as literacy educators, and the local networks perceived to be available - or not - to support intensified literacy instruction within the CTE context. This chapter draws upon and synthesizes data from interviews with teachers and administrators, classroom observations, and document analysis from the study sites, with particular attention paid to several teachers and classrooms whose work was especially evocative for understanding both the possibilities and dilemmas raised through dual reform. I describe practices associated with literacy and/or subject English teaching, and examine how various approaches were connected to particular views of student needs, as well as to English and/or literacy as the appropriate subjects of focus for fulfilling the spirit of the 2001 CTE policy.

A paradoxical effect of the 2001 policy – one with a direct bearing on opportunities for student literacy learning in CTE – emerged as this analysis took shape. In producing new curriculum initiatives in relation to commencement-level English, the 2001 policy seemed to make it more difficult to recognize, assign value to, and enhance existing capacity to support literacy teaching in CTE. At the same time, the policy did not appear to produce new resources or more effective strategies for helping students who
struggled with a range of literacy-related competencies, and it might have made it more
difficult to do this overall. I explore this situation in the final chapter of my dissertation,
but lay the groundwork for it in Chapters 6 and 7 through examination of dual reform as
it affected teaching and teachers, as well as learning and students.

Creating Integrated English in Regional Occupations

Assembling the English Team

During the year of my research, there were three English teachers working at
Regional Occupations: Pat, Becky, and Kate. Pat had been onsite at the CTE Center as
an alternative education teacher and school administration intern since the 1990s, and, as
an exercise for an administration class, she literally wrote the job description that led to
her role as a CTE English teacher. Becky was Pat’s protégé, a student teacher from a
traditional English secondary education program in a nearby college. Kate, a veteran
high school English teacher who had recently retired, stepped in to serve out Pat’s school
year, after Pat decided to return to high school teaching.

The person who originated the role of English teacher in Regional Occupations,
Pat soon discovered her job would require her to serve as a broker for curriculum
integration as the 2001 policy took hold. The brokering stance suited her well: she
viewed herself, first and foremost, as a learner, someone in need of the help of CTE
faculty to understand their fields, rather than as an English expert who would pronounce
what they needed to do to improve their teaching. She reached out to CTE faculty with
the carrot of a stronger curriculum and improved image, rather than the stick of
integration – and her English expertise – as a State-imposed mandate. This brokering
stance was sorely needed since Pat was a fulltime faculty member, but one without a
curriculum or classroom of her own. The primary agent for integration, she needed to work on conceptual, material, and symbolic levels, to position herself as a resource for the existing staff.

Pat was a mentor to newcomer Becky as an ELA teacher and CTE advocate. Becky brought to her student teaching position an assumption that there was a lack of rigor in CTE, in terms of what she considered academic study. But she also brought a sense of curiosity and even admiration to the job, due to her brother’s surprising success in a CTE trades program, following years of failure and alienation from school. She was particularly struck by the conceptual depth of his mathematics learning within a trades curriculum that offered integrated math/science/technology, which she credited with teaching him more than he’d learned in previous years of high school math classes combined. Still, Becky admitted that she “never imagined myself here...never in a million years. I don’t even know if I would have applied for this job if I had seen the posting in the paper” (Interview, 3/22/07). She had fully expected to enter a traditional high school English classroom and shape her pedagogy around a literature-based curriculum, but found the CTE student teaching opportunity intriguing.

Although Kate had been immersed for years teaching in a traditional, college-prep literature curriculum, she also relished the challenge of teaching in Regional Occupations, and she came out of retirement to assume Pat’s position. Kate thrived on the collaborative spirit of Tech Center—so different from what she long experienced in school, where departments and teachers operated as isolated units. As I explore below, though she found much to interest her when it came to detecting the “Englishy stuff” of CTE (a moniker based on Pat and Becky’s description of the nature of English in CTE),
Kate also expressed a need to create new forms of curriculum under the integration banner. In particular, the need to help students gain expertise with the disciplinary literacy practices that typified academic fields within college struck her as undeveloped, or absent, within Regional Occupations—despite the innovations forged through the English integration program.

**Finding ‘Englishy Stuff’**

Just what constituted English in the CTE environment was a mystery to Becky when she started teaching in Regional Occupations. As she came to discover, “There’s so much technical reading and technical writing that it just works, and it’s amazing how much Englishy stuff you can find in a tech manual” (Interview, 3/22/07). Becky viewed integration of ELA largely in terms of the latent “technical English” embedded within occupational studies, particularly its “tech manuals,” although she admitted that her love of literature and poetry also seeped into her assignments whenever possible. She understood her job largely in terms of her need to excavate English-related “stuff” from the extant CTE curricula.

Although she grew comfortable with this sense of what English was in CTE, Becky discovered that she had much to learn about the CTE fields and their disciplinary practices of literacy, as well as the Technical English genre. “We don’t get taught how to teach those things when we’re taking our Teacher Ed classes, you know,” she remarked. “We barely had our own resumes and figuring out how to do a resume, let alone how to teach it” (Interview, 2/07). With the help of Pat, she spent a great deal of time figuring out what Technical English consisted of, which led her to build a new paradigm of English as a discipline. Though she did not anticipate this as an aspect of her role as an
English teacher prior to teaching in Regional Occupations, Becky found that the extensive use of small-group project work in her undergraduate teacher education program was a resource that enabled her to develop effective work practices. In a role that required her to collaborate with colleagues, Becky drew on this knowledge to forge relationships with CTE teachers, and she came to see this as influential in her approach to ELA. Many CTE teachers made use of teamwork, problem-based learning, and other collaborative or peer learning approaches in their pedagogy. The need to work with them helped her to learn from them, pushing open her perspectives about curriculum planning and successful teaching of subject-area English.

Jim, the Regional Occupations principal, reinforced the brokering role and the paradigm of ELA as “finding Englishy stuff” through the lens of Technical Studies. He viewed CTE as a natural motivator for learning, and emphasized CTE’s relevancy to student interest in work and real-world learning as a linchpin to foster engagement. Describing the culminating portfolios each senior needed to construct, Jim echoed Becky’s emphasis on technical English as a logical frame for literacy in CTE, saying, “[They have] analysis writing that they’ve done. You know, all the elements, all the writing pieces, because it’s their field, it’s them. It’s not Shakespeare” (Interview, 2/07). Technical English made ELA plausible for all involved; in a sense, it fit students’ ontological condition. “It’s their field” and thus it is “them.” By implication, Shakespeare decidedly was neither their field nor “them.”

Clearly, Jim took a nuanced stand in relation to how he defined literacy, seeing the construction of a literate identity as emergent, with expertise developing through one’s experiences in varied contexts of literacy use. His views facilitated literacy
innovation in Regional Occupations. Perhaps ironically, however, it was the capacity for a student to sit comfortably in-between “their field” and “Shakespeare,” when it came to literacy, that would seem to define what it meant to be at the “hyphen” of academic-occupational integration—to be the learner, under dual reform, who capably embodied the ontological character of academic and occupational “types,” and could move with ease between formerly separate spheres. Even in a site noted for its embrace of the tenets of integration and its creativity in fostering new approaches to CTE youths’ literacy development, the such practice was under construction, and its meanings were unstable.

Pat’s story of constructing the ELA approach at Regional Occupations sheds light upon how Becky came to acquire a particular perspective about English integration in CTE. As the first English teacher hired at the Center, Pat developed the curriculum and a mode for working with CTE faculty. She quickly learned that teachers held particular ideas about English:

One of the very first things that I did was to talk about the components of writing with Career and Technical (CT) teachers. And I created a rubric for writing, and they said, ‘It’s too Englishy. Too many words.’ So then we went back, and I came up with a generic rubric for them to use, that made sense to them, kind of thing. So that was one of the very first things that I did here, was to just talk with them about what good writing is, and how it’s not just literary criticism, kind of thing.  (Interview, 3/15/07)

In her staff development role, Pat found that she needed to challenge a taken-for-granted assumption that introducing ELA within CTE supplanted one set of curriculum priorities and practices (occupational studies) for another (subject-area English). To be effective, there needed to some kind of frame for ELA that made sense, and a construction of her role that would be acceptable to her CTE colleagues. As it turned out, she discovered this within her own experiences, in her varied background in teaching and her genuine
interest in learning from CTE colleagues. A former college Writing Center director, secondary English teacher, and teacher of severely disabled adults, Pat found that all of these “helped [me] for this position. It helps me to see English in a broader perspective. It’s not just reading ‘Lord of the Flies’ and it’s really life skills, hands-on sorts of things” (Interview, 3/15/07).

An important aspect of Pat’s discourse is the use of “both/and” in her explanations. She did not propose ELA/CTE integration in terms of traditional, subject-English, with a literature focus, or something else such as “Technical English.” Instead, English was inclusive of multiple practices and texts, “not just” those practices and texts associated with a single literary canon and literary criticism writing activities. Her role included spreading the word about this “broader perspective” of English – where CTE instruction could be Englishy -- and she looked at her work within Regional Occupations as generative in this regard.

Creating Englishy Stuff

Although they could identify and extrapolate reading, writing, and communications content in each program well enough to create crosswalk matrices, Becky and Pat came to feel the activities and associated assessment practices used by CTE teachers frequently did not fulfill commencement-level learning standards for ELA. Hence, over their two years of working together, these English teachers began to create, as well as mine, “Englishy stuff” for CTE. Just as Rural Tech’s CTE Administrator, Janet Adams, described the need to “bump up” math/science/technology content in some courses so that it reached commencement-level learning standards, Becky and Pat looked for ways to infuse challenging, English-related activities into existing CTE courses,
especially those that could award students academic credit. Although Pat reported that she and Becky had “looked and looked” for content-area textbooks in each CTE field containing such challenging reading, writing, and communications practices, they typically hit a wall:

There just isn’t a lot out there. We have developed a lot of our own stuff. I would say the culinary arts textbook has some good, I would say, stepping stones. They give ideas for some projects and some activities….The FFA [Future Farmers of America] curriculum that our ag-science teacher uses has built into it a lot of stuff, so we will take some of that stuff and adapt it, or whatever, but even sometimes you don’t need to adapt it. There’s some good vocabulary sections in there and what-not. We have added into that one, of course. We read a little bit of Rachel Carson. We read a little bit of James Herriot, and we do ‘Seven Habits of Highly Effective Teenagers.’ … Graphic Arts? The teacher is very creative and we worked together this summer and came up with some projects. But some of the others, it’s all design-your-own kind of thing. Ours is so geared to their own particular curriculum. (Interview, 3/15/07)

Both teachers were present for this segment of the interview, and it led to an interesting discussion about whether having textbooks really would provide a beneficial “frame of reference,” as Becky put it, to guide what should be part of the ELA curriculum. Together, they concluded that the opportunity to have ongoing dialogue with their CTE partners, to have a role that made observation of those teachers’ instruction integral to designing the ELA course of study, was most beneficial. Pat remained energized, however, by the idea of designing a text that could help future teachers learn to develop the disposition to collaborate in such ways with CTE teachers. She saw such a text as one that would communicate a set of principles related to English integration within CTE, as well as broad, adaptable curriculum activities and assessment tools to be used in a range of occupational courses.

The work of designing and assessing elements of Regional Occupations’ ELA curriculum did not fall only to Becky and Pat, as far as content knowledge expertise. Just
as each occupational program was required to use an Advisory Board of experts and supporters to provide regular feedback on curricular goals and plans, Jim and Pat had developed an ELA Advisory Board. Composed of high school English teachers, a retired school librarian, and a community-college English professor, this group reviewed curricula and assessment practices, and helped Pat and Becky develop integrative approaches that would meet “commencement-level” learning standards.

From the outset, Pat was determined to engage CTE teachers by providing them with useful tools related to ELA concepts and skills, material that would enable them to develop autonomy in teaching literacy-related competencies, as well as CTE, rather than relying upon the presence of English teachers exclusively to support students’ literacy learning. Echoing her principal, Jim, she emphasized that these materials needed to make sense to her colleagues. Subject English needed to be displaced from conventional moorings (“it’s not just literary criticism”) and replaced with something different, something that made sense. Pat frequently tried to find an ELA dimension within existing activity in CTE, and then would work with the teacher to deepen and expand the ELA segment so that the activity could be used to count for ELA as well as CTE credit. As Pat framed it, a primary aim of such planning was to help CTE teachers see “that we’re not trying to take away from what they do, that it’s not in addition to, it’s part of, and they can see how it all fits together” (Interview, 3/15/07).

Pat went on to describe an Auto Body teacher who – much to her surprise -- ran with the plan to integrate ELA into his curriculum; she expected him to find the math/science/technology integrated credit more appropriate and appealing. This teacher described numerous language arts practices central to work success in his field, practices
important both to enter, and move up the ladder within, his program’s career area.

Creating a curriculum map was easy in this case; Pat and the teacher fashioned a weekly scope-and-sequence plan that showed precise learning objectives and performance indicators. Then, they figured out how to create and document “matches” that would show the logical link between the content of Auto Body and “the ELA standards and activities that I [Pat] can do,” explaining,

They always had to keep some kind of evaluation for how they do, how they work in their performance. When it came time to do the ELA, like with the auto body teacher, we have worked a lot on trying to match it up with the English so they can get credit for it. So they keep a daily log, and they write a lot, actually. Every week, they write quite a bit. But it’s within their field; they’re writing about what they’re doing. They’re writing about the goals they have for that week. (Interview, 3/15/07)

“Englishy stuff” was similarly easy for Becky to locate within Cosmetology, which already required extensive reading and writing, including journal writing. For a student journal to count as part of the assessed English credit, however, it needed to include particular features. Becky explained,

…in Cosmetology, I may look through their journals and, you know, if they write something like, ‘I worked on so-and-so today. He needed a boy’s haircut. It went well.’ Now, you know, over the course of two weeks, she may have some entries in there that are a little more substantial and [I would] count that as a whole. (Interview, 3/22/07)

To be regarded as “substantial,” an entry needed to include student reflection, not merely a simple description. The CTE teacher’s goal was to shape students’ expertise, which included an ever-expanding range of problems to solve. Smith set her writing expectations around this, so that writing would serve the problem-solving goal. She referred to a “huge project,” called the “Swatch Project,” to exemplify the integrated approach in this course:
They had to collect swatches of hair, six inches long. They colored the hair—obviously Karen, the instructor, did the theory behind that. For me, they have to explain the process in steps, complete sentences. There’s some reflection pieces in there and they had to do this for each one. And it’s very tedious and there’s a lot of writing, and they’re not happy about that. But I think even if the swatch didn’t color as they had planned, they know, ‘Oh, I should have let it process longer,’ or ‘I should have let it…I mixed the wrong stuff,’ you know. (Interview, 3/22/07)

As Becky made decisions about the nature of reading and writing practices that would “count” for English credit, or not, it grew clear that it was extremely important to design a literacy learning environment in CTE, and not merely look for ways to mine it from the existing curriculum or pedagogy. The work needed to assess learning that included both literacy events related to CTE, and literacy events developed to fulfill the ELA integration goal, could be complex. As I explore below, such work represented another layer of the “negotiations” needed to make ELA integration function within Regional Occupations.

Assessing Englishy Stuff

More negotiations. Serving as a resource to the Auto Body teacher to intensify and strengthen something central to his curriculum, Pat’s work echoed the institutional role played by Regional Occupations in relation to the component high schools, as Jim had framed it. Pat was a resource to the CTE teacher, and CTE was a resource to support the intensified academic focus of the high school. Becky’s collaboration with the Cosmetology teacher reflected this as well. Such framings were important for producing a logical, cohesive approach to academic-occupational integration in CTE.

The 2001 policy goal for curriculum integration construed integration in terms of bringing the rigor of content-area academic study to CTE, at the commencement level of the learning standards. Diving into this worried some of the CTE faculty, who at first
wondered, according to Pat, “How do we assess this stuff? We’re not English teachers. How do we know if this is correct or good or commencement level?” (Interview, 3/15/07). In fact, under the 2001 policy, CTE teachers largely were not responsible or able to “assess this stuff,” since the capacity to award academic credit required the involvement of content specialists at the level of curriculum design, teaching, and assessment. Pat pointed out that all CTE courses followed a “60/40 split,” with 60% of the grade determined by students’ performance related to the occupational goals (typically seen in terms of mastering work-specific skills), and 40% determined in relation to tests and written work. Prior to ELA integration, Pat said, CTE teachers viewed this as, “60% is performance and 40% is not performance,” with “performance” construed mostly as hands-on – and not reading/writing-intensive - activity. Rather than separating writing and hands-on activity, Pat advocated that they “do the ELA strand all the way through, because in their performance, for example, practically everyone here has a daily log that they have to keep that matches up to what they do in the real world” (Interview, 3/15/07). She worked step-by-step with the teachers who wanted to award English credit in their CTE courses, building a dialogue and process that helped them to see how literacy competencies could be woven throughout the curriculum, and throughout their pedagogical approaches, beginning with concepts and activities they already addressed and enhancing these through writing, research, and other types of literacy-intensive projects.

The Auto Body teacher, for example, transformed his existing daily log practice into a more complex, student-conducted evaluation, with an expectation that students would not only enter descriptive information about the day’s tasks, but would also reflect
on their learning across the week, synthesizing and analyzing while also sharpening their
descriptive reporting skills. Further, they used evaluations to probe technical aspects of
their work, a task they notated differently than the written reflections but viewed as a
related piece of their evaluative work. Pat explained, “…on that form, he also has the
time they spend doing those things, which isn’t an ELA part. So he has a two-part
evaluation kind of thing” (Interview, 3/15/07), with the historically-separated
performance and written dimensions fused into one.

Like Pat, Becky was challenged by the need to figure out which aspects of
learning were CTE related, which were part of the academic content instruction, and
which reflected an innovative blend of “CTE English” that perhaps was more than the
sum of its parts. She articulated this idea in terms of what English-related work was done
“for me,” versus work that perhaps did not meet the commencement-level English
standards and thus would be assessed by the CTE teacher. Referring to her work with the
Health Occupations teacher, Becky noted:

We share a lot of grades because I don’t know the technical jargon that she deems
appropriate as an English grade. Or she may say, “Do you want to take this as an
English grade and I may say, “Workbook with matching, I don’t think that should
count.” But a journal that gets graded every week, I count as an English grade.
(Interview, 3/22/07)

**Technical literacy: A situated, but partial, view.** Kate, who delighted in the
extent to which collaboration with fellow teachers defined her job in Regional
Occupations, raised an assessment-related concern that provides an interesting
counterpoint to this discussion. She expressed reservations about assessing English
learning when the very definition of what would count for English might be limited.
Specifically, although she viewed it as positive that many types of texts and writing were
included in Regional Occupations’ conception of English, she argued that “finding Englishy stuff” was not sufficient as an English focus in CTE. Her extensive experience in teaching high school English (college prep and basic track) led her to feel some regret that students taking English in CTE would not be exposed to the literature-based curriculum that typified her senior year English course, because she felt this curriculum benefited young people as they developed as readers, writers, and thinkers. Even more that this, she felt that students earning English credit through CTE

…may be missing something, because in terms of having to read, the kind of reading that I see going on in some of the tech classes is more of manuals, and of instructions, directions, how-to things, instead of a chapter out of a sociology book or something? And that kind of reading is so needed at the freshman, regular college level, that they may be some issues there….I think that’s important in high school in general, that kids don’t have just the literature form English. That they learn how to read all kinds of writing. (Interview, 4/26/07)

In other words, students needed exposure to disciplinary reading and writing practices central to what they would encounter in social sciences, humanities, science and other fields at the college level. Kate saw this as a problem beyond the CTE classroom, but she took the position that it was the very model of collaboration -- of bringing the discipline of English into the CTE classroom -- that might serve as a catalyst for doing something different with English in CTE. In her view, whether or not CTE students continued to college, the capacity to read and reason through the ideas that structure the academic disciplines of college should be promoted as a valued competency in high school, and one for which CTE was ideally suited given its disposition to orient learners to learning as a concrete part of becoming a participant in the economy, and in social and civic life. Throughout one interview, Kate emphasized how grateful she was to have had
her view of English expanded over her years of teaching, as she was shifted from a pure literature focus by the whole language movement...and by universal skills [where] you need collaborative skills and thinking skills, problem-solving. And I began to change my curriculum so it integrated all that stuff, so my English class wasn’t English class. It was communication, and team-building, and critical thinking” (Interview, 4/26/07)

In Kate’s view, the use of multiple types of texts for learning, combined with teachers’ proclivity to broaden conversations with young people about purposes for learning, meant CTE could be a learning space that used college-level texts meaningfully. In addition, it could be a site for teaching young people who might struggle with literacy how to unpack academic texts, and thus see themselves as college material rather than assuming further education was not for them.

I witnessed this in action, with Kate at the helm, during an observation of her while teaching in “New Visions Legal Professions,” one of the specialized programs of Regional Occupations that had been designed with college in mind. The goal was to attract typically high-achieving, academic students to BOCES, with the opportunity to earn dual high school and college credit. I learned, from the course leader, that component schools were trying to develop their own versions of the course so they would not need to send interested students off-site. More and more of these students, then, resembled the average CTE student who was not as high-achieving in academic subjects.

No matter to Kate. She conducted a college seminar-style English class, based on a discussion of Camus’ The Stranger. This had been selected as a text because it brought out themes related to the psychological forensics focus of the course. I observed one such class. The class was held in a downtown office building, close to the courthouse and
other sites that were used for field trips/group observation and internships. Students, in leather office chairs, sat at office tables that were placed in a semi-circle. Kate expertly conducted a Socratic-style discussion; the program leader, who had a criminal justice occupational background, sat at a desk in the rear. Students frequently moved from Kate’s questions about the text and characters’ motivations, to discussing experiences that were relevant from their internships—comments augmented, at times, by the lead teacher, who made direct connections between the literary analysis and the course topics.

Through “New Visions,” students could earn credit for two, introductory composition classes in a nearby college, if they met certain conditions. What drew my attention even more than the very interesting discussion of text was Kate’s repeated reference to the nature of the discussion they were having, what she referred to as “a college-level discussion.” Every once in awhile, when there was a lull in discussion, Kate would frame what was happening in terms of it being a “college–like” exchange, providing examples such as being based on a complex text, with discussion unfolding through the open-ended questions she asked but also, more importantly, through the dialogic exchange students had with each other.

As Kate shared with me later, despite her assumption going into this teaching assignment that the New Visions student participants were a college-bound and college-ready group, compared with the CTE student in cosmetology or auto body repair, the picture was more complicated. These were not students who were inclined to initiate intellectual conversation in a classroom setting; they needed explicit guidance and modeling for this.

**Summary: Integration, But of What?**
It might be tempting to minimize these issues of “who should assess what” (and what practices should be assessed at all), yet they illuminate how porous and contingent curriculum integration was in practice, how dependent it was on ongoing dialogue and negotiation about the purposes for each disciplinary field, the practices central to gaining expertise in it, and the integration of diverse fields traditionally seen as “academic” or “occupational.” All of these dimensions could vary across sites of CTE instruction. The 60/40 assessment split, for instance, caused a great deal of consternation among counselors and teachers who were surveyed and interviewed about curriculum integration, among other issues, for the a New York Capital Region BOCES Survey (2005). Despite the involvement of certified English teachers working in collaboration with CTE teachers, and the regulations shaping course expectations, a survey and focus group interviews elicited comments such as the following:

- I am concerned that the students are not getting a full curriculum of English 12. The students have told us that it is not comparable to the difficulty of a regular English class in the home school. Students coming from this curriculum may be at a disadvantage in a college-level course.

- It is often difficult for home schools who require that students take English 12 to encourage that students do the work at both Vo-Tec and here.

- Not enough time spent on ELA requirements to meet NY State standards

- Could be more rigorous.

- There’s a need for more communication with home schools.

- Students tell us they don’t do much reading and are not challenged by the program.
• There's not a lot of accountability for how much real science, math and English is going on at CTE. We want to maintain control of our students' diplomas.

Although curriculum integration was “in place” after the 2001 CTE policy took root, these comments suggest a need for clarity about what actually was being taught in integrated courses in any particular CTE site, and for data about the relative benefits of integrated versus traditional course involvement for particular populations of students. Anxiety about the loss of power some subject area teachers might feel, as they see their courses shifted to another sphere, certainly inflects the Capital Region comments. But this concern may have to do with more than a loss of student FTEs and a loss of control over defining the purpose of English as a subject. Questions about the forms of practice that are promoted as central to reform need to be addressed. For example, what is gained or lost by focusing primarily on English teachers to be the agents of literacy reform in CTE? The experience of Rural Tech, a “non-English integration” site that took up literacy as a focus for reform, provides some insight into this question.

**Literacy as Part of the Field in Rural Tech**

Rural Tech did not offer integrated ELA in any of its programs. In interviews, CTE teachers related they were well aware of the expansive roles of written text in the work world, from entry-level to advanced positions, across many occupational fields. They reported using diverse approaches to support students who struggled in reading/writing. It was not clear, however, that they viewed such practices as part of English as a discipline or subject area. In fact, for several teachers, discussing literacy integration in their CTE courses immediately led them to describe their own struggles with literacy – or, more precisely, with English courses -- as youth, shedding light on the
challenge that curriculum integration might present when it needed to be shepherded by teachers with mixed emotions about its role in CTE.

In Rural Tech, no formal collaboration existed between CTE instructors and English teachers to work on literacy development within CTE. As detailed in Chapter Four, a remedial program was underway during the year of my research. A special education teacher guided its implementation and the approach focused solely on individual students’ use of a computer-based instructional program, which was geared to promoting reading comprehension, vocabulary, and grammar improvement. An assumption that no literacy instruction actually was happening within CTE occupational classrooms would be misguided. Certainly no instruction that was able to count for English credit was occurring. Yet, many teachers I interviewed were quite aware of the literacy needs of their students, and in various ways they worked literacy instruction into their CTE pedagogy. Like their English-CTE teacher team counterparts in Regional Occupations, these CTE teachers tried to offer embedded instruction that kept students engaged in the core material and goals of their programs, while strengthening the critical thinking, reading -- and to a lesser extent – writing skills needed to succeed in their programs. They had high praise for the one-day literacy skills workshop offered as a Professional Development opportunity and expressed a desire for additional support of this kind.

I conducted formal interviews with five teachers multiple times throughout the year of my study. I held focused conversations with twelve teachers and teaching assistants shortly after their participation in the literacy-focused staff development workshop that I had attended as a participant-observer (see Chapter Four). In the
interviews, I hoped to elicit responses to the strategies presented, especially in terms of how teachers viewed them as fitting within their existing contexts for instruction, and in light of teachers’ conceptions of literacy needs in relation to their curricula and students. A palpable sense of relief came through in all of these interviews: relief in discovering that addressing literacy might be related to the subject area of English, but also could be understood as a distant cousin rather than a close sibling. Some respondents appeared to be stuck with the narrow idea of literacy integration as subject-area English as the introduction of literary texts, writing practices associated with the analysis of literary texts, and a formal focus on grammar instruction. On the one hand, none of these notions fit these teachers’ perceptions of what was needed to strengthen students’ reading comprehension and fluency, vocabulary, and critical thinking development. On the other hand, as shown in a chart produced from a needs assessment Janet had conducted the year before my study began, many lamented the poor comprehension, analysis, and grammar skills of students.

Despite the existing pull-out arrangement used with students who needed to work on the computer-assisted instructional program, other respondents I spoke to following the in-service feared that a focus on English would reveal students’ weaknesses, with negative consequences. These teachers claimed that the environment for learning in CTE often was able to offset the struggles students had in academic courses, or at least shift the focus away from these struggles and towards types of engagement with concepts that some students found more accessible, as well as interesting. They did not want to jeopardize this and felt a focus on academic practices typical of “home school” English
might make visible students’ difficulties and create stratification in CTE classrooms that highlighted group achievement as much as individual.

**Participation Structures Matter: Literacy as Embedded in Learning How to Work**

Ginny, a Culinary Arts instructor in Rural Tech, stressed these ideas and more, as she reflected on the literacy development workshop and its connection to her teaching. In her program, language arts practices existed within the industry-rooted (“Prostart”) curriculum. Students worked through a textbook; consulted culinary dictionaries and Internet articles as they tackled more and more complex recipes, as well as topics related to health and safety; took tests that used multiple choice and essays to gauge learning; and wrote different types of papers to explore culinary topics, including their own family and community culinary histories. Ginny understood the secondary-level curriculum as part of a sequential, articulated curriculum that linked to college-level culinary arts programs; thus, success in her course served as a sort of de facto pre-college experience. Performing well in her curriculum resulted in earning a Prostart certificate: “When they walk out with that certificate, they can look at the colleges. Some will give them nine credit hours, depending on the school” (Interview, 1/5/07).

In Ginny’s experience, the ability to earn articulated credit for college did not stand out as the primary impetus for participating in her program, though it was a welcome bonus to many students once they learned about it. Her program drew a diverse student body, form those with no interest in college or sense of whether it was an interest, to those who ultimately pursued paths significantly different from culinary arts, but who stated, when she asked about their motivation for her program, “‘One, I have to eat. Two, in order to get a job when I’m in college, there’s plenty of jobs, and if I’m certified in the
culinary field, I will get a higher pay rate instead of walking in at entry level” (Interview, 1/5/07). Gaining particular language arts capacities served them well, wherever they fell on the work-and-college continuum. To Ginny, the types of experiences with reading, writing, speaking, and listening central to her program rivaled those of the “academic” (specifically language arts) high school classroom. Thus, they were appropriate for gaining competence in culinary arts, and within a system that stressed rigor in particular ways, particularly to prepare for higher education.

Indeed, Ginny found her program to be uniquely suited to this dual purpose of career and college preparation. Compared to what she saw as a typical learning environment in high school English, her program emphasized communication skills as a central focus for student growth and development. In fact, Ginny largely defined reading and writing as communication practices, seeing them as serving the larger purpose of learning to problem-solve, make decisions, navigate relationships, and work closely with colleagues in busy, demanding work environments. She reported using demonstration, peer learning, and performance as key modes of instruction and assessment. Ginny viewed the activity system she attempted to create in the class as beneficial both for students who struggled in learning environments that stressed written language and individual performance, and students who succeeded in traditional environments yet needed to learn to work with a broad range of people. Although individuals served in unique roles in typical culinary workplaces, learning to be flexible, and to link part and whole, was a requirement for anyone in this career area, at any level:

I see students struggling. Some of them can’t read, the comprehension is not there, they struggle terribly. It’s still there, I haven’t seen much of a difference in the last twelve years that I’ve been teacher. What I do is, I look at it and I really try hard to make the students understand. If they can’t read it, and I can’t
be there all the time, they don’t have …they’re not to the degree where they need a one-on-one aide, but yet they have a resource room, and we don’t have a resource room here. I have myself and two aides, and what I try to do is, if they can’t understand it by reading it, then I demonstrate it, all the information, in a demonstration. And then I turn around and have them do it. So if they can’t comprehend by the reading, they at least can visually see it and remember it…They’re visual learners, if they have a hard time reading, they’re visual learners.

Sometimes [students] depend on each other as a peer. I have three young boys that are, they have a learning disability in their reading comprehension and the reading in general…And they do their homework together because some things the one young man might understand, and they do that part of it, and then the other young many will do another part where he understands. And then the third one will come into play. And between the three of them, they do quite well on their homework, and they do the homework. (Interview, 1/5/07)

Ginny went on to say she would hold the group, and each individual, accountable for the knowledge gained and problems explored in such work. She deliberately wove connections between this type of pedagogy and what happened in the kitchen, pointing out that the boys in this group were comfortable relying upon each other, as needed, to get their individual tasks done and to understand how they each were contributing to the overall purpose of a project. In other words, the participation structure of her classroom stressed group as well as individual learning, and emphasized using multiple means to find solutions to problems, rather than becoming invisible or stuck when encountering a problem. She explained,

I don’t want to make them look like they’re dependent on someone else but instead, I look at it as if they don’t understand it, at least they’re going to someone for help rather than just standing there and doing nothing….They know I’m a perfectionist, and they know things need to be perfect, and they will work up to my standards. You know, it’s not just because you have to do it, they know the reason why they have to do it. And they feel very good about it (Interview, 1/5/07)
Teachers in early childhood education, cosmetology, automotive technologies, environmental technologies, and metalworking technologies all mentioned using similar strategies when it came to supporting students with weak reading and writing skills. All were emphatic about the need to explain precisely how the forms of collaboration they advanced to support students’ growth as readers and writers were tied to performing successfully in the occupational fields they were teaching. The focus for joint activity, in some classes, shifted fluidly between written materials and work-related artifacts. In one of the automotive technologies classes I observed, Powerpoint texts provided the platform for reading, writing, and collaborative meaning-making:

Joe, like Bill, also uses Powerpoint that came with his course text, but he begins with a review from yesterday and then starts with a framing idea to get them thinking about “Tapered Roller Bearings,” the topic they’re moving into. I am at the end of the long table, watching most students get out their notebooks and start jotting diagrams. A few just won’t do it, even with prompting from the teacher. Before they turn to today’s work, the teacher praises the group for its success in replacing a dual timing belt system, which they did with great precision. He focuses on how much that costs in a shop. His lesson begins by introducing technical vocabulary for today: stationary, housing, tapered, over-torque, viscosity. Then, “Where’s all that heat coming from? That’s my question for you today.” He winds back to this question periodically, reminding students of the focus for this chunk of the class.

Then, he begins with a mini-lecture about ball bearings and the importance of high quality parts. Some students comment on the low quality of Chinese products (teacher has suggested this). The co-teacher (from another Tech Center; he’s sort of a mentor for this relatively new teacher) shares his view on outsourcing, pay scales, Tiaanmnen Square, cheap labor but sometimes high quality, and Walmart. Lays-out what has happened in the auto manufacturing industry since World War II, and ends with his thoughts on the contradictions of the U.S. objecting to human rights violations in China but totally supporting outsourcing and Walmart. The first teacher wraps-up by saying, “We’re the people who take care of stuff now, not make it anymore.”

Then they move on. Every slide is sprinkled with, if not political and historical analysis, myriad stories and examples, which both teachers actually guide fairly nicely back to the key things they want the students to notice and learn. Stories follow a sequence: “What happened to so-and-so’s car? What I
learned working in my job in (fill in blank: machine shop, dealer...)? What happens to X if you don’t think about Y?” Even the students who don’t take notes participate in these discussions, though it would be interesting to know what they retain and how they are/ aren’t able to apply concepts in the lab. (observation, 11/14/06)

**Overcoming English**

Rural Tech teachers seemed to use multiple modalities to teach the concepts central to their fields, integrating linguistic, visual, and kinesthetic modes. A lingering question, however, would be whether such approaches obviated the need for students to read and expand their repertoire of texts, or if these approaches were used to make text more accessible and promote stronger reading practices. For teachers, the goal was to get content and ideas across, and to engage students in problem-solving and critical thinking. They were accustomed to using practices of “providing” students with text-based information, as Ginny put it, and were reluctant, at times, to move away from this practice, feeling they did not have time to both engage students in more reading and writing, and do the hands-on work with them that they viewed as the heart of their courses.

For example, program rigor was evident to Ginny in her program partly through the use of a nationally-recognized curriculum that enabled students to earn college-level credit, and partly through the high standards she set for learners, whatever their prior school performance and apparent abilities/disabilities. Her course included the integrated math/science/technology credit and thus offered students the ability to earn an academic unit of credit. She was not certain that adding an emphasis on reading and writing, however, would benefit her students. Since her curriculum stressed the development of communication abilities, Ginny reasoned there already was an emphasis on language arts
in her program. Writing to communicate with colleagues and supervisors, for example, provided students with experience in writing for varied purposes and audiences. She preferred seeing the language arts focus remain in the high school, rather than trying to add it to CTE: “IF they do keep it at the school level,” she stated, “it will help us have more time to work on things that we have to work on right now…as part of Culinary. [Students] don’t look at [reading and writing] as homework, you know. It’s fun stuff because they have an interest in it” (Interview, 1/5/07).

The construction of literacy/English that Ginny put forth might be viewed as a doubled-edged sword. On the one hand, it drew attention to what Darvin (2004) dubbed “situated” literacy practices, though Darvin argued these could be expanded by having onsite English teachers in CTE offer curricula and pedagogy that stressed “powerful literacies” as well as functional literacy practices that helped one become competent to perform in a job. On the other hand, Ginny’s view reinforced distinctions that have dogged vocational education for decades, such as the notion that language arts learning tied to the traditional high school classroom was not inherently fun or interesting and would, by extension, substantively change CTE for the worse if introduced into this distinctive learning sphere. Striking in Ginny’s comments, and buttressed by the views of her colleagues as they discussed what I dub “the literacy problem” in CTE and the State’s 2001 policy around integrating ELA, was the need that existed to simultaneously (a) interrupt narrow, mostly negative, conceptions of what a focus on English could offer CTE; (b) deepen teachers’ notions of situated literacy within their curricula, to strengthen their own literacy teaching practices in relation to their occupational areas; (c) avoid reinforcing useless distinctions between “book” and “hands-on” learning, while
recognizing the great nuance embedded in each of these ideas of how knowledge and expertise grow (cf. Rose, 2004); and, (d) deal with the pitched emotional response that a focus on English could bring out among CTE teachers. The experiences of Bill, a teacher of heating/air conditioning/ventilation (HVAC), shed light on all four dimensions.

Subject to English; Reading to Learn

I held several interviews and conversations with Bill, and observed in his classroom a number of times throughout the year, during classes that he taught independently, as well as classes co-taught with a math/science consultant (as part of Rural Tech’s MST curriculum integration approach under the 2001 CTE policy). Bill shared many stories about his reading and writing experiences, in school and out, and was reflective about the contribution of his experiences to his teaching practices with regard to literacy. He blended an understanding of his own school experiences of literacy and English; personal and interpersonal literacy experiences; and analysis of the textual work central to gaining expertise in his occupation. From this foundation, he crafted a pedagogical stance around literacy-in-CTE. A pure joy in reading for multiple purposes, and a need to learn to communicate effectively with many audiences in varied types of interactions and compositions, were central to the stance he cultivated as a teacher. In all of this, Bill avoided and even despised English; his message to students made no bones about this, even as he also promoted the language arts of subject English in his interactions with his classes. As I witnessed, this mixed bag of messages might not lead yield the outcome Bill desired:

A student wants to tell Bill about his campus visit to Alfred, which has a program Bill really likes. Bill is helping another student, so the one who took the visit tells the guy who shares his bench all about it. Bill starts walking over and the first one says, “You didn’t tell me Alfred was a ghetto.” “Whaddya mean?” “Broken
windows everywhere, trash.” [I’ve been to Wells and wouldn’t describe it as a ghetto, but I hold my tongue.] Another student pipes in, “Alfred—you don’t have to take any Englishes.” “The shop wasn’t too bad.” They start talking about other campuses. “Yeah but you gotta take English,” ends up being a refrain that serves to demarcate advantages/disadvantages of particular programs. (Classroom conversation, 11/13/06)

In one of our interviews, following a long conversation about what he remembered liking and disliking about K-12 schooling (he graduated in the early 1970s), Bill described what he tried to inspire in his students with regard to reading and writing. English was his least favorite subject; he failed both 9th and 11th grades, and was in remedial reading classes throughout his elementary and high school years. But he drew a sharp distinction between English and reading:

But reading is…I love knowledge. I’ve got a wealth of, more trivia in my head! I don’t read enough of the novels, I guess….History, though, history I just loved. I loved studying about wars.”

(MA: Which is reading!)

Yeah, pure reading! And I love finding out, what I try to teach the guys now, [the equipment] comes with a little book? And that’s your whole knowledge base on that piece of equipment. That’s how you’re going to figure out. You know how it’s supposed to work, lots of times, but the fine details of how that’s going to work, how you set it up, how you’re going to troubleshoot it. It’s all in that book that comes with it. (Interview, 3/2/07)

Throughout our conversations, Bill emphasized the extent to which his work identity hinged on the fact that he generally worked alone, traveling as an itinerant system repairperson over a large geographical area. With his specialized skills, Bill mostly did the installation, maintenance, and repair work on commercial systems. Being able to troubleshoot on existing equipment required familiarity with the equipment and the diagnostic tools that enabled him to pinpoint repair needs. He stressed again and again that he, alone, made decisions all along the way about the repair procedures he
would use, and that having confidence in his ability to do this -- as well as skill in interpreting texts that were both familiar and unfamiliar -- went hand-in-hand in his success at becoming a skilled technician. Attention to detail, genuine curiosity about the cause of a problem, interest in fixing the problem, and skill in selecting and using the tools needed to make a repair all went together for Bill.

It was no puzzle to Bill that his first reading love – history – prepared him well for this type of occupation and the specific way he developed as a technician, working independently, often accompanied only by stacks of texts that required deep concentration to decipher and apply, if he were to succeed in his task. English as a subject area, however, was a different story; it was decidedly not the story of learning such practices through analysis of increasingly complicated, literary text. All of Bill’s associations with English were negative. “Don’t ask me to diagram a sentence!” he exclaimed several times, defining English almost exclusively in terms of grammar instruction and his own failure in the subject. “I liked math but I wasn’t good in it,” he explained. “And I hated English. It’s still foreign to me….I failed 9th grade English and I failed 11th grade English” (Interview, 3/2/07). It was tinkering mechanically that he found interesting, as well as reading history (which he did not view as akin to the reading required in English). He thought for a while that he might like to become a dentist, fascinated by that sort of tinkering, but his failure in English led him to leave school in 12th grade.

Sent back to school by his father, he earned his final credits studying a trade, then entered the Navy, becoming a boilerman who taught others about systems operations. Several years out of the Navy, he entered a two-year college program to study HVAC,
after doing library research about the field and interviewing people working in it. It was in college that he began to link reading and writing, with learning and doing, discovering positive dimensions to literacy practices in school that he had never quite experienced while growing up. His HVAC professor required students to conduct research and write papers on a regular basis:

….25 years ago..you had to research your topic, you had to do a lot of reading to figure out what you wanted to put in it, and just like you did in high school, you had to list all your sources where you got it from. So thinking, looking back on it now, I never really thought about it but it probably was the beginning of how I learned how to do research. And I’m really pretty good at doing research. (Interview, 3/9/07).

His teacher required the accurate use of multiple sources, use of appropriate terminology, and a technical style suitable for conveying how systems operated and how specific problems could be managed. Despite this extensive engagement with specific practices of literacy, and his awareness that doing the papers sharpened his critical thinking, research skills, writing skills, and perspective about the roles of reading and writing in occupational learning, Bill was noticeably embarrassed to admit that he had taken only two English courses during college. Throughout our interviews, Bill alluded to textual “turning points,” such as the time in the Navy that a friend “turned [him] on to Tolkien,” and he pursued the author and fantasy genre for years afterward. At the same time, he juxtaposed his recreational reading choices in the present, which he described as news, politics, and trade literature connected to his field, with his lack of interest in fiction: “I don’t read enough novels, I guess,” was a refrain sprinkled through our conversations. For Bill, English appeared to be associated with particular forms of grammar instruction, and with texts that he did not care for, assigned rather than chosen, by teachers rather than shared through peer networks.
Bill hoped to provide students with a spark of inspiration around reading, conducting research, writing, and communicating – within the occupational field of HVAC, for sure, but also as civic-minded young adults. In fact, when it came to reading in his classroom, Bill expected students to tackle texts with a “need to know” sense of urgency that fueled his passion for his field. He also expected them to develop an interest in learning the conceptual and procedural knowledge offered through the texts used in his class (textbooks, but also manuals and trade literature), since he viewed texts as holding the key to understanding why equipment functioned in the ways it did. The major text used in his course was a three-inch thick textbook with a reading grade level equivalence of 13.8 (see Appendix G for an excerpt from this text). He supplemented what he expected to be students’ independent reading of the text with daily Powerpoint presentations to review text material. There was a noticeable difference in Bill’s uses of texts as he moved from the textbook, to Powerpoint, to diagrams and blueprints, to discussion based upon exploring model parts:

Bill calls the students together to review a chapter from the textbook. He uses a Powerpoint that came with the teacher’s guide, but he has added “cloze” sentences that he has students copy into their notebooks. They have key words missing and he directs students to particular paragraphs they should have read, to re-read and complete the sentence. Too quickly, he gives the answer; many students are still reading and haven’t had a chance to try to complete the sentence themselves. But this is the notes part of class and he wants to fit-in lab, too. From here, he opens a closet and takes out a large box that has a part that is similar to the one featured in this chunk of reading. He projects an image of a part diagram, and uses a laser pointer to talk through the diagram. At this point, students ask a lot of questions, process-oriented ones, not “name the part” procedural ones that are more what the “cloze” sentences lead to.

When he moves to handling the actual model, more of the talk becomes conceptual. So they move from functional to processural to conceptual. This is a lot to absorb and I know, from what he has said in conversation, that he wants students to be able to apply that conceptual way of thinking in their lab work. That is the critical thinking he wants to see. But it really depends on feeling a
sense of ease or mastery with the definitions, functions, and basic processes first, and a lot of the students seem to need more help with these areas, especially since much of that is supposed to come from reading the text accurately and fully. It’s interesting to compare the ways he does and doesn’t scaffold their reading, with the more problem-based approach from when the math/science consultant collaboratively taught with him earlier in the week, when they were trying to determine the insulation needs for the Habitat house they’re working on with Building Trades. It was all pair- and group work, more questions by the teachers to prompt hypotheses and testing. (Observation, 11/13/06)

Bill’s classroom was plastered with texts: tables and charts, which he taught students to use to save time when they needed to make conversions to complete a calculation; blueprints and wiring diagrams; and a range of equipment manuals related to home and commercial heating/cooling systems that students worked on in the laboratory portion of the class. Other texts that Bill used on a more casual basis included posters, magazine articles, and announcements related to trades and industry groups in the field, and the trade literature to which Bill subscribed. Indeed, this latter material covered Bill’s desk/table at the front of the classroom. He referenced it frequently in interviews, discussing how it illustrated both his love of his field and his love of reading to learn: “I mean my desk is always looking like this [piled with texts]. Trade literature, I’m always reading trade literature all the time. Cause I love the job. But I have a variety of other reading I like, too” (Interview, 3/2/07). Both qualities – reading to learn in his field and reading to discover more broadly - were ones that he hoped, in true master-apprentice form, students noticed and eventually would emulate.

**Challenging Strategic Reading**

What Bill emphatically did not want to do was to reinforce what he saw as a mistake in certain approaches to reading instruction with secondary students. Teaching reading strategies, without emphasizing critical thinking, was one of these approaches.
Bill knew his textbook was difficult. It was a text used in college courses, combining general knowledge about relevant scientific properties, with functional information about the nature of work in the field, historical information about the field and the evolution of mechanical systems related to HVAC, and career and life skills needed to become an effective worker in many types of relevant positions in the field. In short, it was jam-packed and overwhelming to many students. Bill had little formal training in teaching methods, and he was relatively new in CTE, taking on the teaching position seven years earlier, when the travel demands of his work had exhausted him (and his family) after 20-plus years. Although he felt he was finding his way as an instructor, he knew that he needed to make the textbook more accessible if he were to help students thrive in his program. As noted above, he used PowerPoint presentations available with the text to provide visual references during his lectures, and he designed supplemental resources (models and demonstrations) for his lectures to provide multiple opportunities for students to explore the scientific principles and processes covered in the reading. He regularly gave quizzes and tests related to key processes that he knew might be included in the written industry test and in the performance skills tests that students would take at the end of each year, developed by national industry-related agencies.

Still, many students struggled to comprehend the textbook. This proved frustrating, because Bill expected students to bring to the class some functional level of skill that will enable them to learn from the textbook independently, especially since their text-based work was complemented daily by laboratory experiences. Trying to understand students’ struggles, Bill turned to “reading strategies” as a culprit. He felt too many students resorted to looking for shortcuts through the text, rather than raising
questions and using logical processes to try to figure out ideas that stumped them. Ruminating about the nature of reading struggles he saw with regard to this textbook, Bill described students’ tendency to read only to find answers, rather than to try to understand the larger processes being described and illustrated. He compared this with some students’ weak reasoning skills in relation to their laboratory-based work. Although many students were highly skilled in replicating procedures once they had been shown how to do them, some did not seem to work hard to understand the properties of systems, or struggled to pose questions of a critical nature, so that they could not participate effectively in conversations that would offer frameworks for analytic thinking. Procedures could vary when applied to seemingly similar systems, because of variations and changes in equipment, diagnostic tools, and external conditions. Rather than merely memorizing a series of steps to follow, Bill wanted students to be able to explain the connections between steps, and to ask themselves why and how things operate along the way. Without doing this, he felt they failed to gain the insight needed to troubleshoot systems accurately and efficiently.

Bill rightfully framed this complex problem as one with a tangle of roots. The combination of a “bootstrap” approach to self-improvement that was his biographical experience, and the “learn by watching” ethos that seemed to be a driving heuristic for his own development, offered students possibilities for growth but also could have limited impact. Referring to his foray into teaching students about a new home furnace system that he had never worked on before, he optimistically expressed a hope that by making his learning processes evident, the problem-solving, critical thinking disposition of an expert technician would be awakened in students: “So they see me in a corner with a
booklet, reading it, so I’m hoping they’ll see by my example that [I don’t] know everything, and this is how [I’m] figuring it out” (Interview, 3/9/07).

Bill was well aware that this type of knowledge was partially acquired and partially learned; for him, acquisition and learning took place over a long period of time, and had become tacit as he had gained expertise. As a teacher, his own frustration and challenge seemed to rest in his struggle to externalize that knowledge and then to deconstruct it, so that he could help students explicitly to build it for themselves. From his own experience, intensive laboratory and textual work in a college-level program established the knowledge base needed to continue learning in his field. Yet he also described years of prior experience in the Navy in a mechanical field, which itself was related to his lifelong love of tinkering and mechanical work, and lifelong love of reading history (despite his labeled history as a failed student of English). Through his own biography, it was clear that the crafting of technical expertise, which included the use of complex interpretive practices, actually rested upon a thick bed of relevant experiences with text, manual labor, interest and motivation to learn, and a supportive community of teachers and peers. To reduce this to his own students’ successful and autonomous engagement (or not) with the difficult text central to his course, without being aware of these other significant dimensions that have made “reading” effective in his life, perhaps limited what Bill viewed as the nature of literacy development, and possibilities for it within his content area.

A telling contrast to this could be seen in the Early Childhood Education class, in its collaborative work with a Family Literacy Program (see Chapter Seven). Students were divided into groups: those interacting with children, those collaborating with the
parent educator, and those assigned as note-takers who actually functioned as ethnographers. Situation after situation provided opportunities for learning side-by-side with experts; collaboratively constructing insight with peers; and building a record about work processes that became another common text in the course for future reflection and analysis:

I sat with the note-takers today as they observed their peers working with children in the family literacy program. I took notes, too, then asked several students if we could compare our notes. One student said her goal was to get a sense of what the children liked to do, what activities they gravitated toward and initiated themselves, and then what they did as the activity unfolded. Her notes were very detailed and precise, not just “Tim likes noise,” but “In the ball area, time liked the bell and then when he moved to the farm area, he got upset when the sound toy was being used by another child.” She was noting patterns of behavior among several children, and, at the same time was assessing whether some pre-arranged areas were functioning well if kids didn’t use them, or if they just went in looking for one toy and rushed out. She also compared her notes to one of her ECE colleague’s notes. Near the end of the session, another friend emerged from the classroom behind us. She had been part of the teaching staff that worked with parents in the family literacy program, and she was very pleased to report that the parent class “studied the four-part model of development” that they had already learned. They also did a life stories activity that was part of the ECE curriculum. This student helped facilitate all of it, sharing her expertise. (Observation, ECE class, 10/27/06)

Summary and Looking Ahead

I have sketched some of the dynamics affecting English/literacy as part of CTE learning environments in my two sites. The main message I have drawn is that the state’s emphasis on integration as a mechanism to forge a new kind of work-oriented education that has academic “rigor” at its core rests on a foundation that seems to be simultaneously sturdy and shortsighted. The primary focus of practice, with regard to the 2001 policy, has been to place English teachers in CTE sites so they can collaborate with CTE teachers, enhancing CTE curricula through the lens of “commencement level English”
learning standards and pedagogy. Under the all-Regents graduation mandate of 1996, this construction of literacy within CTE has been deemed necessary, not just desirable. It is how the State has opted to legitimate vocational education, in light of its decision to advance the Regents system as the optimal vehicle to define secondary-level education. Seen as linking two points of a continuum rather than leaving them in their separate locations, this approach enables policymakers and educators to assert they have fostered a new type of cohesion across historically distinct and oppositional domains (academic-vocational).

Evidence statewide and from the present study suggests that the policy has driven many types of positive change in local sites. As data from Regional Occupations shows, there can be clear benefits for learners and teachers when English teachers work onsite in a technical center. CTE faculty in Regional Occupations who wanted to award students credit in English through their occupational courses have extended and deepened language arts-related practices within their occupational areas, and have not been alone trying to figure out how to do this, since they plan, teach, and assess their new effort with the support of a language arts expert. CTE faculty who do not choose to offer English credit nevertheless have benefited from the presence of English teachers, who help them develop writing-intensive projects and consider new ways to approach reading, writing, and communication instruction within their occupational curricula. Indeed, the focus on awarding English credit seems to have made it possible to implement a literacy-coaching model within CTE, with English teachers operating in multiple capacities. They offer instruction more typical of secondary English classrooms, curriculum and pedagogical support to create an “English” CTE, and, to a degree, they provide individualized support
for students who struggle with English course content and/or other literacy-related practices and skills.

Yet conditions specific to local CTE sites also reveal significant gaps in relation to the discourse of cohesion, and contradictory effects of the dual reform agenda. Rural Tech shares with Regional Occupations a need to focus on young people from small-town deindustrialized areas. Yet it is quite remote compared to Regional Occupations, a “northern frontier” area that is fairly isolated from even small cities. One consequence of these dynamics is that the component high schools sending students to Rural Tech need to do what they can to preserve core academic subjects in the high school site, as opposed to offering options for earning academic credit via home school or CTE. Academic teachers need full course loads to maintain their jobs; moving some students offsite to earn academic credit jeopardizes these teachers. Hence, there never was an ‘option’ to integrate English into Rural Tech, since the regional superintendents had decided from the outset that English would remain a “home school” course offering.

Despite this decision, school leaders in Rural Tech were determined to carve out a specific strategy to address literacy within CTE. They were well aware that CTE, 40% of whose students were classified as needing special education services and many others known to be “struggling” academically, offered a unique environment for instruction related to literacy, and mathematics/science/technology. They also were pragmatic, and felt they could do little to challenge the superintendents’ views of “where English belonged,” since, as Principal Sue Dutrow put it, they were “at the mercy of the home schools financially” (Conversation, 10/06). What grew clear to me in analyzing data from Rural Tech was that a range of opportunities were available to strengthen literacy
teaching and learning using the existing capacities of Rural Tech, yet the framework of reform dominating the discussion about CTE at the level of the State left little room for such a grassroots approach to thrive. The result was that Rural Tech put forth a somewhat cohesive vision for the development of work-oriented youth, but it was stymied in its ability to develop it fully.

Teachers such as Ginny and Bill welcomed opportunities to participate in professional development seminars linked to enhancing their use of course textbooks with students whose reading levels ranged from grade two to college (see Appendix F for an excerpt from a survey used by administrators to plan such seminars). They made use of vocabulary study concepts and strategies learned in one day of workshops. They were not advocates for offering English credit through their CTE programs, and they had specific reasons to justify this stance. However, both of these teachers – and others who were part of this study – supported the idea that more discussion among teachers and support specialists across academic-vocational borders could only benefit them and their “shared” students. Further, with the remediation program in place to support students with low-literacy levels, teachers wanted more information about what students were learning and how they could incorporate specific approaches to teaching to reinforce these students’ development. With questions such as these in mind, I turned to students to examine the effects of dual reform.
Chapter Seven

CTE Students and Literacy Learning under Dual Reform

As previous chapters have demonstrated, the 2001 CTE policy enabled CTE programs to devise strategies for reform that were sensitive to the interests, practices, and resource conditions specific to particular school districts and BOCES consortia. Yet, as the final evaluation of CTE policy implementation indicated, tensions remained. The persistent reading problems of some CTE students stood out as a particularly difficult challenge to address, and it was identified as an issue that some administrators viewed as motivating students to drop-out of CTE (MAGI, n.d., p. 10).

I sought to understand how students viewed CTE in terms of supporting their learning interests and literacy needs. My goal was not to determine or measure whether a correspondence existed between specific curriculum strategies related to literacy, and outcomes for students in terms of grades or test scores. Rather, I wanted to gain insight into students’ learning biographies, how they constructed their goals and prospects beyond high school, and how they understood CTE and academic learning experiences in relation to their literacy development and pending, postsecondary transitions. I hoped this would offer perspective on dual reform discourses, local enactments of discourse and policy, and claims central to the risk society theorists introduced in Chapter Two.

In this chapter, I consider the impact of dual reform in relation to four focal students who negotiated literacy learning and youth-adult transitions in distinctive CTE contexts. One student, Tanya, was a senior in Regional Occupations. Three others – Lisa, Megan, and Drew – were seniors in Rural Tech. I feature these students not because they
are representative of all of the CTE student participants in this study. Rather, each one offers a singular window into the affordances and constraints under which CTE was operating at a particular historical moment, in particular places, in relation to particular discourses and policies focused on improvement of student literacy learning.

A specific goal of this study was to learn about the shape and scope of literacy in CTE, in relation to students’ constructions of literacy in multiple contexts and in relation to prevalent discourses. To this end, I visited CTE classes and wrote extensive field notes about literacy-related instruction, conducted educator interviews, reviewed curricular and policy documents, and interviewed students. I used a semi-structured interview format for my first interview with students (see Appendix X). In subsequent interviews, I followed-up on specific themes related to individuals’ stories, and posed questions that their first interviews had raised as I coded and compared them. In addition, since I interviewed students at different points in their senior year of high school, I posed questions in follow-up interviews that addressed students’ progress in decision-making and planning for postsecondary transitions, based upon ideas they raised at the beginning of the year.

Two overarching themes emerged across these cases. First, for dual reform to achieve its aim of making college access and success a possibility for CTE students -- particularly those identified as struggling with literacy -- there was a need to focus consciously and intensively on college exploration. Students clearly needed sustained support to identify college programs that fit their interests, levels of preparation, and financial situation. Further, they needed opportunities to become connected with college life and expectations of college study prior to arriving on a college campus, or prior to
deciding whether or not they might ever be a good fit for college. There was a critical need for CTE and high schools to step in and provide sustained, deep support in this area, in order to (a) move work-oriented students’ rhetorical commitment to college into a position of biographical possibility, and (b) provide concrete, individually sensitive information that could help students make reasoned decisions about college or other further learning opportunities for which they could prepare (Rosenbaum & Person, 2003). As Stern (2009), Rosenbaum (2001), and others have long argued, students who are work-oriented benefit when they have access to rich curricula and classroom learning experiences, as well as rich network connections that help build employment-related experience, guide students toward entry into the workforce, and make viable a range of further learning possibilities.

Second, for some students, dispositions and practices they developed through CTE could be carried-over as resources into academic learning, perhaps enhancing and being enhanced by non-school practices of literacy as well. In this regard, students *themselves* could serve as agents of academic-occupational integration. Carrying particular literacy skills and practices across the boundaries that separated the school day and sites of learning along academic and occupational lines, some students thus attempted to forge their own versions of integration. Learning to be an agent of one’s own literate development is a crucial attribute or disposition for building an effective learning biography (Lawy & Bloomer, 2003). Seeing this work, it grew clear that integration should be broadly construed rather than narrowly configured around certain forms of curriculum and instruction. Otherwise, only particular ways of doing things get valued when it comes to building programs and courses, determining staffing needs, and
ultimately supporting students. In the meantime, some of the actions of students (and teachers) to take responsibility for enhancing literacy development, in and across institutional contexts that offer variable types of structural support for this, are rendered invisible, rather than productive.

**Focal Student Biographies and CTE Programs**

**Tanya: Health Occupations**

Tanya was a senior in the Health Related Occupations program at Regional Occupations. The component high school she attended was classified as a rural district. From the time she decided to participate in BOCES, Tanya planned to use the experience so she could enter both the workforce and a college program. Health Occupations had been crafted to enable students to earn certification as a Home Health Aide, typically achieved at the end of grade 11 if students pass all relevant course and statewide examinations. By the end of grade 12, students could earn the credential of Certified Nursing Assistant. To do so, they needed not only to complete specific coursework but also to work successfully in supervised internships in three institutional sites, and to earn a satisfactory score on the State certification exam, which included practical and written dimensions. In addition to these basic requirements, students could earn several additional certificates, viewed as beneficial to them when they entered the labor market. Among these were completion of an introductory sequence of courses in Phlebotomy (which would support students if they pursued certification in this area) and certification in CPR.

Tanya decided early in grade 10 to enter the two-year Health Occupations program. She identified herself as a student with strong academic skills and decent
grades. CTE was an appealing option to Tanya because it would allow her to get a job immediately after graduation, which she needed to do in order to attend college. It was, she said, “an easy way to get in the door and continue working, and be able to pay for college as I went” (Interview, 6/1/07). She excelled in the Health Occupations curriculum, both in terms of learning the skills and concepts specific to health services, and expanding her writing, reading, and communication practices through the English concepts and experiences that were integrated into the course (partially described in Chapter Five). For these reasons, Tanya’s Principal and English teachers all recommended her as a study participant, noting, as well, that her maturity and capacity to handle the occupational and academic workload of her program with a great deal of autonomy made her stand out among her peers.

Tanya entered the Health Occupations program with a twofold plan, one that she felt distinguished her from many of her peers. First, she wanted to gain certification that would enable her to seek work directly after high school. This was a shared aim among many in the class. Tanya’s second goal, however, was one that she viewed as unique within her class: to use the expertise she gained through Health Occupations as a means to continue health students in college. Although she did not reference this specifically, Tanya’s program offered the potential for her to earn articulated credit, meaning she could attempt to have her some of her CTE course experience and credit actually count for college credit. The development of “articulation agreements” was a central feature of the 2001 CTE policy; they already were in place in many CTE programs, as a result of collaborative secondary-postsecondary work done earlier through STW and Tech-Prep initiatives. An ability to earn such dual credit fit well with Tanya’s desire to pursue
college and her need to do so in ways that were affordable; articulated credit could reduce costs and redundancy for students.

**Lisa: Early Childhood Education**

Lisa was a senior in Early Childhood Education (ECE) at Rural Tech. She was one of the students in a cohort of seniors participating in the math and literacy CAI remediation program. Her ECE teacher recommended her as a potential study participant due to this identification of literacy need, as well as the progress Lisa had made as a learner from junior to senior year in her ECE program.

Lisa fell into her CTE program mostly due to timing and good luck. She entered her current high school after the start of her junior year, with an interest in CTE but without a clear direction in terms of a particular program. She wasn’t sure that she would be able to start a program late; it was October when she moved into her district, although she had attended school in this district years before. Soon after, Lisa discovered that a space had opened in the ECE program. She signed-up for it, unsure of how she would fare given her insecurities about her literacy abilities. Right away, she was confronted in ECE with the need to learn about young children’s literacy, and to learn how to be an effective literacy teacher. By senior year, Lisa described ECE as an environment where “everything meshes,” where – to her own delight and surprise – she excelled as a learner, drew praise from her worksite supervisors, and had begun to construct a positive literate identity and sense of academic potential that would likely include college (Interview, 12/11/06).

Lisa’s schooling history was filled with starts and stops: early success and enjoyment of being in school were followed by despair and failure. Her family moved
often throughout elementary and middle school, not only between districts within the rural region where she attended CTE, but also between areas of the state that took her far away from those peers and teachers with whom she had established bonds. Lisa said she struggled to make friends and tended to stay on the fringes of groups, both in formal classroom settings and social situations. She found herself struggling to catch up, academically, every year that she entered a new school, which compounded her social isolation.

Lisa reported that her current living situation was manageable, but also challenging. She had lived with her mom and younger siblings, yet the recent birth of her youngest sibling led her mom to move out of their household to live with her partner. Thus, Lisa largely lived alone. She said that her work schedule, combined with school, kept her out of the house much of the time. Lisa was on very good terms with her mom, who paid household bills, but Lisa herself needed to make her own car and car insurance payments. She stressed that her mom and older sister had always tried to support her learning, knowing she struggled as a reader and with the social demands of schools as they moved from town to town. Lisa also noted that her mom, a Home Health Aide who “was interested in a lot” and “reads and writes a lot” as she studies to move up in her field, was “a harder learner, too, so she understands where I’m at.” Of her learning and reading-based relationship with her mother, Lisa said, “I kind of help her out, she kind of helps me out” (Interview, 12/11/06).

What Lisa experienced most acutely as the end of senior year approached was a pressing feeling that she needed to rely on herself for own her well-being. As she grew towards adulthood – having already assumed some “adult” roles and responsibilities –
Lisa related that she felt an urgent need to make sure she could stand on her own two feet financially. Although she saw the value of postsecondary schooling, the fact that she already worked fulltime to support herself made her approach the idea with a great deal of hesitation:

I have like this whole fear of being in debt for the rest of my life, so, I don’t know, it’s something I should work on obviously [the fear of taking on debt], but obviously if I want the education, I’ve got to do that [take on debt]. That’s the way I was raised, though. Not to depend on anybody else. Depend on yourself, pretty much” (Interview, 5/15/07).

Since early high school, Lisa had worked in a fast food restaurant—worked so much and with such competence that she had been promoted to manager by the time she was a senior. “That’s the only thing that’s really stable in my life, is my work,” she shared. “I have no problem doing it. I do it. No complaints….That’s the only thing that’s really stable in my life, I think, so I’d like to keep that sanity” (Interview, 5/15/07).

**Megan: Early Childhood Education**

Megan also was a senior in Early Childhood Education at Rural Tech. She described herself as an average student who found her way into CTE because it seemed “fun and easy” (Interview, 12/11/06). For many years, Megan had worked as a babysitter, a role she enjoyed. She had been able to take a Children’s Literature elective early in high school, which she loved. Megan’s mother, a residential aide in a group home for special needs adults, encouraged her to pursue ECE. By the time of our first interview, in early November of her senior year, Megan evinced a clear joy about her experiences in the ECE program, particularly her worksite internships, and she expressed great optimism about the steps she would take when she graduated.
In particular, Megan focused on her plan to use the articulated credit agreement of her ECE program to enroll in a local two-year college ECE program. This was a momentous decision, since it would make Megan the first person in her extended family ever to attend college. Megan felt prepared. She had taken all of her required Regents courses and passed the requisite exams (although she had needed to take a Social Studies exam twice). Although she had always found Science and Social Studies “confusing and hard to understand,” she was enrolled in an English 12 course in her high school that clearly focused upon college preparation through study of British Literature (p. 3). Prior to ninth grade, Megan had accessed a Resource Room for literacy support. This was discontinued when she was evaluated at the start of high school, yet Megan stated that she felt prepared to seek support in college if needed:

**MA:** … Have other folks in your family gone to college? Will you be among the first?

**Megan:** I will be the first [big smile]

**MA:** The first. Wow! (Megan: mhmm) That’s a big..that’s probably a pleasure and some pressure!

**Megan:** Yeah! (MA: a combination) Yeah, cause I kind of wanted to take a year off, but the more I think about it, the more I wanna go. So, it’s just better to go and get it done with. So it’ll be easier. My mom is so proud of me. My brother always tells me that I’m going to be the first to go to college, and they’ll be looking up to me and everything else. So that’s pretty cool. (Interview, 12/11/06)

A few months following our first interview, Megan and I met again. In the interval, she had spent considerable time working onsite in a daycare center in her hometown, one of her CTE worksite placements. As the end of the school year approached, the daycare center offered her a job, and Megan accepted. She decided not
to pursue college, a decision rooted in the certainty of having a job, her greater enjoyment of spending time with children than continuing onto school, and the prospect of gaining enough experience to be in a good position for a better job in the near future. In particular, Megan mentioned the prospect of a day care center connected with a prison that was slated to open in the coming year. She hoped it would generate good jobs and she would be well-placed for one, with her first job under her belt. She also looked forward to the possibility of opening a family day care operation, emphasizing her excitement about that by drawing a picture, during our interview, of the sign and shingle that she would hang to advertise the business she owned and operated.

Megan had her family’s support if she wanted to pursue college. She planned to live at home whether she attended college or began working fulltime. What was clear, however, was that Megan would need to fashion a considerably complex network to figure out how to be a successful college student: financially, educationally, socially, and more. She had many friends who were interested in college (or already attending the nearby college that interested her), but she had just as many who were, like Megan, tired of school and hoping to enter the workforce. She certainly felt no antipathy to college, yet, following the many descriptions about what made learning challenging for her and what made CTE “fun and easy,” her decision to take advantage of a fulltime job offer made a great deal of sense. She did so as a young adult living in a community with severe economic difficulties, as part of a family that offered her stability. In the end, in such a context, being the first to pursue college could not quite hold sway.

**Drew: Heating/Ventilation/Air Conditioning**
A senior in the Heating/Ventilation/Air Conditioning (HVAC) program, Drew embraced the idea of being part of the present study because his girlfriend had piqued his curiosity about sociological research. A college sophomore, she had conducted an interview-based study for a course and he followed her work closely. In each of our half-dozen conversations, Drew seemed eager to reflect upon his prior learning. He thoughtfully analyzed how his academic, recreational, and familial experiences related to his CTE situation and future plans, and he was articulate as he expressed his plans and explored his questions about life after high school.

Central to Drew’s life was a love of being an athlete and of honing his athletic skill in general. Over his high school years, this interest had led him into extensive, independent study of how to improve his performance through training and conditioning. When we first met, Drew had just taken the SAT exam and he was eager to discuss his college plans. He expressed hope that he would attend a Division I university so that he could study to be a strength and conditioning coach, while working with college athletes. Over the academic year in which my study took place, these aspirations shifted quite a bit. He ended the year as a military recruit, with uncertain plans for higher education as part of his future.

How and why did shift occur? Drew’s experience offers a peculiar view of CTE and its connection with the academic high school program. As a student with an Individualized Education Plan (IEP), Drew accessed a Resource Room daily in his high school, primarily for test modifications (extended time, tests read to him). He had been tested and identified as having ADHD in middle school, following a year that he
described as quite difficult: filled with academic failure and utterly different from everything he had experienced as a student throughout elementary school:

[In elementary school] I was like an outstanding, I don’t know how they graded it through, K through 6? And in 7th grade, I started out pretty good, and then my grades started dropping almost to failing through half of 7th and 8th, then my first quarter of 9th. And my parents realized that I wasn’t paying attention anymore. I couldn’t watch TV. I couldn’t sit still or anything. Then they took me to the doctor and he said that I have ADHD. So then, that was one of the reasons why my grades were so low. So they, I didn’t know about the resource room, and he recommended, my guidance counselor. So we went through the process, and I got tested at school. They said that I needed help, so I went in the school and got resource, and it helped me a lot. (Interview, 11/13/06)

From the time he was in 8th grade, Drew said he knew he wanted to enroll in a CTE program in BOCES, knowing it would provide him with a break from the classwork he disliked. He viewed himself as a hands-on learner, yet said he was drawn to HVAC, a course known for being challenging in terms of the technical content and dense textbook, because it “looked more interesting” than forestry, welding, or other programs that might seem more congruent with a hands-on learner (Interview, 11/13/06). By the time he could enroll in a CTE program in grade 11, Drew also was on course to earn a Regents diploma; in fact, he had passed Regents examinations in each required subject by the start of his senior year. Drew appeared to have successfully forged a learning career that combined academic and occupational study. His disability status meant that he was not required to study a foreign language; he otherwise viewed his academic experience as similar to that of his peers who were not in a CTE program. Despite this, Drew’s plans for college faltered. He never did share much about his SAT scores or the processes he used to explore college options, but it was clear Drew did much of this work on his own, with little external guidance.

“Stable Ground”: The Foundation for Postsecondary Transition
Tanya, Lisa, and Megan all pointed to preparation for work as a key element of how they made sense of their competence in CTE. A need for “stability” stood out in their interview transcripts. All three tied the extensive work-based learning they had been part of since entering their CTE programs in Grade 11 to a feeling of expertise developed within their program areas.

Tanya linked her growing expertise in her field directly to work-based learning and integrated academic-occupational contexts, both of which demanded increasing levels of autonomous action from her as a learner and practitioner. Tanya planned to attend the two-year college in her town to pursue a health-related program. After this step, she planned to continue into a medical-oriented bachelor’s program, such as Respiratory Therapy or another health technologies area. Having a specific plan for earning a four-year degree, Tanya said, was not common in her program.

Indeed, in Tanya’s experience, completing her program’s two-year sequence in Regional Occupations was somewhat uncommon:

There was a couple kids who graduated [completed the first year only] and decided not to come back. A couple kids who weren’t cut out for the program, so they dropped, and people who just didn’t like it. Now we’re actually with people who care about what they’re doing, care for the patients. They aren’t there just because they have to be. A lot, cause the school is based, if you’re in GED, you have to be in a program too. So some kids were just in it because they’re in GED, so they needed a program and they thought this would be an easy program. But it’s not. (Interview, 6/7/07)

Tanya’s commitment to her chosen field stemmed from an emotional and highly personal place. She chose to study Health Occupations on the heels of a family crisis, when a parent had been diagnosed with a life-threatening illness. This happened early in her high school years, and she became closely involved in this parent’s care. Through this experience, she not only gained insight into the complexities of providing care, but also
grew in her determination to structure her educational pathway to help her “find stable ground” economically. She reported that she had never experienced particular learning problems that might have propelled her towards CTE as a hedge against academic struggle. Rather, the situation that arose in her family drove her towards CTE, and into Health Occupations specifically. In fact, she related that her “mom sort of pushed me into this field…. [it] is just an easy way to get in the door, and continue working and be able to pay for college as I went” (Interview, 6/7/07). She described many complex emotions she felt as she moved into the intimate role of caregiving for her parent, where she gained insight into the healthcare system and determination to learn to “do the skills” of excellent caregiving for the benefit of others.

Through the exigency that her biographical situation produced -- she could assume nothing about her postsecondary situation, in terms of family support, college-going, and more – she came to value CTE. Against a tide of stigmatic views of CTE that she frequently heard from peers in her high school, Tanya asserted a view focused on the value of occupational learning as an option for many youth:

People pick on people for BOCES a lot. But it’s not for troublemakers. It’s for people who want to come here, get some kind of stable ground in something they like doing, and then continue doing it maybe while they’re going to school or just stay in the profession, and just stay there. (Interview, 6/7/07)

Gaining stability, doing work that one enjoys, creating options for further learning, and becoming part of a field of practice in and beyond high school: all of these were the potential outcomes of CTE, according to Tanya, and as much of her interview discourse shows, she was determined to show that studying in a CTE program provided as much – or more- challenge as any other course she was required to take. For Tanya,
this was especially apparent when it came to literacy practices, which I explore later in this chapter.

Lisa and Megan also participated in extensive work-based learning experiences, which helped them both gain confidence and expertise, and provided them with concrete connections to occupational networks. Connections to college, however, were more elusive for both students than they were for Tanya. Lisa placed high value on her financial independence and need for stability, yet she also saw her experiences of moving frequently as a child, and of supporting herself as a young adult, as having fostered an adventurous sensibility. This, in turn, led to reluctance to lock herself into that long-term commitment that college participation would entail. “I’m kind of iffy about the college thing,” she reported. “I know I need an education. It’s just not what I want right now.” She did not want to be “tied down to anything” (Interview, 5/15/07) and said she felt most comfortable with the idea of exploring options while continuing to work after she graduated. In the Spring of her senior year, Lisa participated in a regional career fair designed for CTE students, where she interviewed with college and workforce professionals linked in a variety of ways to her CTE field. While none of these spurred her to complete an application for enrollment or employment in a specific place, they did help her to think about work opportunities after graduation that would be connected with her ECE studies.

Despite the sense of security Lisa gained through her fast-food job, the career fair was significant because it also helped her to imagine multiple ways that she could move along in the career area for which she had been educated through CTE, and this, too, reassured her. Her ECE program enhanced Lisa’s resiliency and self-confidence, yet
clearly more was required to enhance her autonomy. Lisa aspired to be settled down -- with a college degree, family, and job – five years after her high school graduation, despite her desire not to make any particular commitments to further education as she approached high school graduation. With this mixed set of ambitions, it grew clear that the success Lisa had been able to fashion in the last two years of high school could help her gain a degree of stability. Lisa already had moved up a career ladder and assumed a management role on the job, by the start of her senior year in high school. Despite this, she also had a desire to seek out new experiences.

Megan secured a fulltime job based on her final, work-based learning experience, which she decided to accept rather than attend college following her graduation. Lisa developed great confidence with academic skills through her program as a whole, and confidently predicted she would go to college when she was able to make the financial commitment or deal with the financial risks it would entail. Despite the presence of articulation agreements that provided both with the potential to start college with college credit earned, neither Lisa nor Megan’s vision of the role of higher education in their occupational development was as sharp as Tanya’s. With a two-year college, ECE program proximally available to them within Holmes County, perhaps they did not feel any urgency to continue into college right away. Or, given the role that CTE played in re-shaping their learning, as well as occupational, identities, and the fact that such re-shaping had only begun in grade 11, perhaps they merely required more intense, direct support, over time, to explore options and begin to structure a pathway towards college, as a memo I wrote at about the mid-point of their senior year suggests:

It’s clear, with Lisa and Megan, that only in the past few months—even weeks – have they begun to seriously conceive not of the VALUE of college, which they
said they already knew was a good idea, but an actual plan of action for doing it. And it’s mid-December of their senior year. This happened differently for each one, though they share the recent revelation. Lisa had not really ever imagined herself as college material before BOCES, largely because she did not have any positive learning and reading experiences with the kinds of texts she imagined as central to college. Beginning BOCES began to test and break this down for her. She’s incredibly articulate about the conditions of learning – environmental with peers, interactions with teachers, kinds of texts – that engage her and through which real learning occurs. Her work-based BOCES experiences make her feel knowledgeable, to have an identity as knowledgeable. She’s begun to thread this together with what might be gained by college-level studies – knowledge-building, networks, and credentials – that could support her targeted work goal of operating a home day care with her mom, and position her to push on ever further than that. To give her options. (Memo, 12/11/06)

Drew, in contrast, seemed to possess the big picture about college, but struggled to figure out how to adapt it to fit with his competencies as a learner, especially in light of his acknowledged learning struggles as well. He needed guidance and support to identify college programs that could provide a good fit and help him grow. Drew had not been exposed to work-based learning in ways that mirrored the Health Occupations or ECE programs, since HVAC required substantially more theory-based study in its first year, leaving less time for experience in the occupational field. For Drew, by the end of senior year, the military shifted from a margin to the center of his vision, helping him to define his interests in relation to an entity that, as he understood it, would enable him to learn and gain skills, and earn his way towards college in the future (not an atypical pathway at all for youth in Holmes County or, according to Rural Tech guidance counselors, for CTE students specifically).

Under dual reform, the ethos of preparing CTE students “for college and career” prevails, yet resources seem to be directed primarily towards college readiness, with preparation for the baccalaureate serving as the gold standard. Perhaps dual reform has increased rigor and thus can involve work-oriented young people in experiences that
enable them to imagine a wider range of possibilities than in the past, and might even launch them effectively into college. If so, as Grubb (2003) points out it is all the more urgent that guidance and mentoring be expanded, in schools and in communities. This would be especially important in rural areas; in such areas, strong familial and community ties can serve to mitigate the effects of difficult socioeconomic times, and offer solid anchors as youth develop. Yet they also may present normative notions of mobility, success, and adulthood that are quite unfamiliar to the imagined subject at the academic-occupational hyphen. Normative youth-adult transition discourses tend to view rural place attachments primarily in terms of kids being inexorably “stuck” (Corbett, 2007, p. 772). Sometimes rural youth are stuck. In either situation, it is incumbent upon the institutions through which trajectories are shaped to consider their role in youth-adult transition processes, to make action around them part of everyday practice.

Mediating and “Re/Mediating” Literacy in CTE

Risk society theory suggests a need for institutions to be flexible and responsive in relation to young people’s practices, successes, and struggles while they navigate complex, dynamic systems that influence their learning, aspirations, and work possibilities. In the present study, literacy was “sponsored” and made available as a resource (Brandt, 2001, p. 181) in varied ways in Rural Tech and Regional Occupations. Such variation reflected individual teachers’ views of literacy and their role in literacy instruction; institutional exigencies around providing learner- and/or curricular-based literacy support; and the effects of wider discourses. Across these schools, educators worked to position CTE, broadly, as a resource for youth development, against a discursive tide that frequently constructed it as a liability. Youth brought particular
literacy biographies, values, and practices into CTE, as well. All of these dimensions shaped youths’ experiences as participants in the literacy learning environments they encountered in CTE.

Across my interviews with focal participants, students shared detailed histories about their literacy learning and their perceptions of CTE as a context for their literacy growth. Student responses to questions related to this topic varied based upon the literacy context of their particular CTE program and the overall effort towards literacy reform taking shape in their Technical Centers. Tanya, for example, took me on a “guided tour” of the culminating portfolio of her two-year program. The portfolio was a required element for student graduation from Regional Occupations, and the English teaching team spent a great deal of time supporting students in the development of this seminal document, regardless of whether the students were enrolled in CTE programs awarding integrated English credit (i.e., classes that included English as a content area within the CTE program curriculum, potentially leading toward award academic credit). Certain writing and research assignments cut across all programs and were included in everyone’s portfolio: two occupational task analyses; a product analysis; several reflective essays; goals essays; career research papers and interview reports; and an extensive business plan were among the cross-curricular, required elements. Although Rural Tech had instituted a required, capstone senior project, the shape and scope varied across CTE classes, and the level of written work connected to it varied as well. Thus, in my discussions of literacy with the Rural Tech participants, rather than focusing on a culminating project or product, the students presented a chronological literacy history, leading up to and including their CTE coursework. They broadly their learning histories;
examined the demands of their current CTE and academic courses, as well as non-school related contexts; and offered analysis of their performance across these contexts.

Three themes stood out as I analyzed participant accounts and field notes to gain understanding of affordances and constraints of CTE in youth literacy development:

a) The nature of collaboration around text influenced students’ perceptions of the value of their work with texts in CTE, and the connection of textual work with the hands-on practices central to their programs.

b) How teachers mediated student engagement with texts influenced how students viewed their own authority in relation to ideas of the texts and to their sense of their growing occupational competence.

c) CTE held the potential to foster new and productive dimensions of identity and practice as part of students’ literacy biographies, which are key as youth move toward postsecondary transitions. Much depended upon the ways in which CTE recruited and valued what students viewed as the significant literacy strengths they possessed, and addressed what they viewed as significant areas of struggle. Both - or neither - might occur through formal, curricular channels; through the range of learning experiences students encountered in CTE; and/or through relationships students developed with mentors who supported their work and learning interests. The precise nature of such biographical development was not predictable based upon any of these situations alone, suggesting the need to support CTE’s role broadly, and to consider how it might play an important continuing role for youth beyond secondary school years.
Collaboration and Valuing Work with Texts in CTE

I asked each student to compare the types of texts they encountered in CTE with those of academic classes, and to describe the ways they learned to manage the reading demands within different types of courses. I also asked them to consider all of these school-based experiences with their reading practices outside of school. Tanya, Lisa, and Megan depicted the CTE classroom as offering a distinctive approach to reading, compared with their academic classes. Drew, who had spoken at length about science as a difficult subject for him, saw the CTE and academic science texts as similar, and he did not draw distinctions between the practices of reading and using the text in CTE and in academic courses.

The collaborative, peer learning approaches used in their CTE program stood out to Early Childhood Education (ECE) students Lisa and Megan, in comparison with their academic classes. They also found the ECE course text easier to read than academic texts, attributing this to a combination of how they read the book and how they made use of it, and the fact that they found it interesting, since it was directly related to the goals and other activities central to the course.

In addition to working in groups to practice literacy-related teaching skills, such as effective read-alouds and shared reading with children, the ECE class helped students become more active in the lecture part of the course than they were asked to be in academic classes. Both students described the effect this had on their thinking and engagement with course material. For example, in most of Megan’s academic classes, “We usually would have to take [notes] yourself. Like our teachers would have them up on the overhead, she’d say ‘put it down on the page,’ we’d talk about it, and we’d just
keep doing that.” In contrast, in ECE, “I don’t know, it’s different,” Megan said,” cause sometimes we have to just fill in the blanks, and sometimes we do take [notes]. And other times we do group work where everyone, we do group work for notes. But in other classes, we’d just get, we just copy them off of the board and that was about it” (Interview, 12/11/06). We had an extensive conversation about these practices, with Megan concluding that, for her, understanding what she was learning through lecture and text study was enhanced through discussion and collaboration. She acknowledged there was a need to be able to take notes efficiently and effectively in college, but did not view the addition of peer collaboration as antithetical to this. Rather, group approaches helped students to clarify concepts and, within ECE, reinforced the practices students encountered in worksite environments, where teachers worked together to hone their skills and to support the development of children in their care.

In part, Megan attributed her preference for peer learning to her positive experiences as part of a Resource Room prior to high school, where students of similar developmental levels (in relation to certain academic subjects) worked in a small group with a Resource teacher. Lisa, also an ECE student, shared experiences that paralleled Megan, but, in contrast, Lisa had never received special support, saying, “I didn’t really want the help. I didn’t want to feel like that kid who needed special assistance or whatever. I didn’t want to feel like an outsider since I already was, so I just kind of dealt with it in my own way.” She continued,

Well I was really slow in reading, like, it took me like an hour to read three pages sometimes. It was really difficult with some of the books that they assigned. So it was always harder for me, and I would have to take, put aside special time for it….It was like [this] all the way through pretty much. Like they would assign reading and I just wouldn’t do it because it would take so long. And then I’d get in trouble. I understand there were consequences, but I just couldn’t do it. I either
didn’t understand the book, and to this day I still don’t. And I’ll still read it; I just
don’t understand it in the end. And so I’ll have to go ask questions to my teacher
one on one. So it’s just, I don’t know, difficult. No, I take notes, I listen, I write
my own notes from the book. I just can’t get it, and I haven’t found a way to get
it. So...it’s hard. (Interview, 12/11/06)

When asked if the context for reading and interpreting texts felt different in her ECE
class, Lisa acknowledged it did, reporting with enthusiasm,

This is a lot better. Like I think it’s because of my interest. I’m really interested in
this, so I really get it and I have to know it? [said with emphasis] And it’s that
kind of thing where you either know it or you don’t, and I really get it, so I do
really good in this class. I’m on the honor roll, actually. So, what I’m doing
wrong [in those other classes], I don’t know. (Interview, 12/11/06)

Lisa attributed her ECE success with text to her interest. Yet it was clear, based
upon the many instances she described of dialogic learning in her ECE classroom, the
scaffolded practice she experienced for exploring new concepts in relation to teaching
methods, and more, that the pedagogical context also positioned her in new and
productive ways. She felt there were few times when she did not understand an idea in
ECE, but she did need support to gain expertise – and she received it. Thinking about the
ECE context in relation to a more challenging field to her, such as Social Studies, Lisa
offered the following example:

I tell him I don’t get it. He’s like ‘Well why don’t you listen in class?’ I’m like, ‘I
do.’ And he’s like ‘Well you should be able to get it.’ OK [short laugh], ‘Go
home and study.’ And he really thinks I don’t study, and I had to show him. So I
wrote like a bunch of notes that night, and I showed him the next day, and I still
failed the test. And I was like, ‘I don’t get what I’m doing wrong.’ And he was,
‘Well I don’t know, maybe you’re not applying yourself as much as you are
supposed to.’ And I was like, ‘OK’ [short laugh]. (Interview, 12/11/0)

Based upon this statement, it seems obvious that Lisa would have found it
difficult to make sense of her struggle as a learner all these years, if she had not been able
to forge effective relationships to her teachers, the knowledge base of academic courses,
and/or the style of learning they demanded. Lisa’s aptitude for learning did not seem to be an issue. Throughout our conversations, she spoke extensively of her love for recreational reading, of the biographies and historical fiction that she had long been a fan of, and of her delight in being a “closeted writer” who, for many years, had written “essays on like nothing. It’s not like assigned, I just do them for fun….Kind of like the composition paper that we currently do now but I just did them, just to know what my input is on them, what I actually think about the subject” (Interview, 5/15/07). Although dual reform policy would suggest Lisa’s ECE class (and Lisa) was in need of upgrading—requiring more intensive, literacy-based experiences that would put CTE on par with academic courses, Lisa’s experiences suggest the issues might be much more complex.

Authority to Interpret Text

Developing authority through college-like practices. Although she had not experienced difficulties in reading and writing in her academic classes, Tanya, the Health student in Regional Occupations, also viewed the literacy context of her CTE course as unique. This health class was one of the Regional Occupations courses that used the integration approach to offer students the potential to earn a final unit of English credit through CTE. The English content was spread-out across 11th and 12th grades; across both years, an English teacher collaborated with the Health Occupations teacher in the design of language arts curriculum within the course. An English teacher taught the content deemed to be specific to the subject area of English, coming into the Health Occupations classroom once per week for 2 ½ hours—the equivalent, overall, of two years worth of English instruction in terms of State requirements. The Health
Occupations teacher addressed literacy-related competencies, in the context of teaching the content of her course.

Tanya felt there had been a big change between 11th and 12th grade in terms of the approaches used by the Health Occupations teacher to get across her course content. A new teacher has come on board during this time, and, in Tanya’s estimation, she taught in ways there less “classroom like” and more “college like:”

At first this year was a big change from last year, because the teacher last year pretty much made it like a classroom thing. She gave us packets, and she’d go through the packet, and we’d write everything down. But this year, with Ms. S., she’s more at a college level, so she wouldn’t give us packets, usually. She’d write everything on the board and we were responsible for taking them [notes] down. And we’d go through our books and trace pictures, and draw arrows, so it was more of a visual learning? (Interview, 6/7/07)

Later, Tanya reiterated her belief that the 12th grade class was preparing her to be an independent learner in college, someone who would seek out resources and ask questions as needed, and would work with peers to construct knowledge about new material. The class seemed to be more congruent with the approaches to learning that Tanya said had also helped her to be a successful student, such as summarizing and paraphrasing to rehearse and understand concepts that were unfamiliar, and actively engaging with course texts (using visual reminders, making notes, and orally rehearsing material) so they made sense to her. Reviewing her culminating portfolio with me, she explained the many achievement certificates and awards she had included, and described the positive feedback she had received for her skillful work with patients in various worksite placements.

Being successful in the work field, Tanya felt, drew upon the same competencies and capacities as the classroom:
My teacher says I’m very high. I have a high level of understanding. I can carry out things. To me, it’s just basic knowledge. You have to know this has to be done before something else, in order to make things go faster and smoother. It’s just, to me it’s basic knowledge, but to other people I guess it can be seen as a good quality. (Interview, 6/7/07)

Yet it was not just Tanya’s immanent nature that fostered her success. The nature of the learning environment did, as well. She thrived in the English-specific part of the class as well as the occupational part, and, to the extent these were linked through particular projects and activities, she thrived as well. For one such project, students had to teach a chapter of the course textbook. The English teacher helped students to conduct additional research and prepare all aspects of the presentation, while the occupational teacher supported the students’ learning of the textbook content itself. This was quite a new, and welcome, opportunity for Tanya. She used it as an exemplar in her portfolio:

Tanya: …Industry-Related Work is the next section. We have pictures, and I have my assignment from last year. We had to do a presentation on, she had a whole bunch of different things. It was a whole chapter she gave to us, and we each picked a section and taught the class. This was the handout I gave. … I made a poster with pictures on it, and then explained it, and then handed out this for reference (She shared a multi-page handout filled with technical terminology and process explanations of different medical procedures and stuff related to their field).

MA: What made it odd [a term she had used earlier]? That seems like a unique position to be in.

Tanya: I’ve never actually had to teach a class before, which was sort of scary. But once I got, after the first couple minutes I was fine, because they were my classmates, and I knew them all. And I just, I read from the sheet. They all had the sheet. I gave them certain things to highlight, to hit on more. Like certain bone breaks are really bad, but some of them you’d rather have than…a spinal fracture, which is bad. You don’t ever want one! And then that’s how she graded me (showing me rubric and scores). I got a 94 on the oral presentation. She said I could’ve gone a little bit slower on my pace, and gave more eye contact. But other than that, I did pretty good.

MA: Had you ever done anything like that in home school? English class, or social studies?
Tanya: Not teaching. I’ve had to read, like, essays in front of the class but not, other than that, no. (Interview, 6/7/07)

The centrality, and tyranny, of the textbook. The textbooks used in the ECE and Health Occupations courses were designed to immerse students in the disciplines that structured work in their fields. As such, they used a great deal of technical and discipline-specific vocabulary, and made reference to many ideas and events that were unfamiliar to students just starting their studies in these occupational areas. Gaining enough comfort with the ideas of the field to become active, engaged learners who could develop autonomy in relation to course texts and concepts occurred at different rates for different students. In Drew’s HVAC class, the sheer difficulty of the course textbook created a hurdle for many students, regardless of their experience and prior knowledge of the field (see Appendix C). Drew lamented his limited HVAC “tinkering” background and expressed gratitude for the support of his peers and Resource Room teacher as he tackled his academic courses. He felt acutely that different approaches needed to be used to help him become an independent text user in his HVAC course.

The textbook used in this course carried a publisher’s reading level of “Grade 13.” In fact, it was a text used in college-level classes, and both the HVAC teacher, AB, and Rural Tech’s principal, Sue Dutrow, acknowledged that it created problems for many students. For example, seeing the copy of the textbook I had borrowed during the year of my research, Sue exclaimed, “That’s an incredible, high-level, college-level text, and there are students in that course that have a 4th or 5th grade reading level. And the question is, how do you translate that textbook into readable stuff?” (Interview, 11/28/06). She used this as an opportunity to discuss the professional development
workshops she had instituted and hoped to expand, focused on literacy-related issues and differentiated instruction. In relation to uses of textbooks and active student reading, Sue continued,

One of the units that we’re going to be working on as a staff, which was the fourth In the popularity choice, was using the textbook. So we’ll do another lesson on that. Because I think, and in the public school I think teachers are guilty of that too. You hand a textbook out to the kids and say ‘Read chapter one and do the questions at the end of the chapter.’ You don’t tell them where, you don’t go through and analyze your textbook….

… [Here] the use of the text, is the terminology. It’s more of a reference piece for most of the courses, because the reality is, they’re not going to read that text, and I think we have to get away from—and these teachers, here, don’t worry about that piece of the textbook, you know that it has to be a daily integrated part of it, but we have to get rid of the idea, you know I think in public schools the textbook becomes the curriculum. And here, we’ve got the advantage that the textbook isn’t the curriculum. And so by default, it doesn’t become the be all and end all. (Interview, 11/28/06)

Unfortunately for Drew, the textbook was central to instruction in HVAC. Although Bill said he used multiple modalities to explore concepts covered in the text (visual models, demonstrations, PowerPoint presentations, and more), ultimately it was up to each student individually to master the content of the textbook, since a chunk of the course grade was tied to quizzes and tests that stemmed directly from the text. I observed in the HVAC class on numerous occasions, during times when whole-class instruction was taking place and when laboratory work was the emphasis. Only the whole-class approach was used for instruction related to the course text, and a good deal of the teacher-student interaction revolved around controlling students’ side-talk and other attempts to detract from the textual encounter.

Recall that Bill spoke at length about his goal of immersing students in practices of critical reading and sustained use of trade literature related to the HVAC field. As I
suggested in Chapter Six, Bill’s conception about how critical reading practices could develop seemed to be rooted in the apprenticeship model he promoted to engage students in technical work with the mechanical systems in the lab. This model involved a great deal of observation, guided participation, and conversation. In all the time I spent observing, students were never left to work alone in the lab, nor were they left idle; Bill moved from group to group, checking on progress and posing questions designed to get students to articulate the decision-making processes they used to approach particular problems. Later, in an interview, he spoke at length about the design of such interaction, and the importance of using interactional moments to push students’. During lab time, Bill said he expected that the frequency with which he checked technical manuals, spec sheets, diagrams and blueprints, and relevant trade literature in the course of tackling technical problems hands-on, would provide students with a model for reading that they would internalize and progressively use independently, just as they did in relation to the technical skills were central to his curricular objectives.

As noted earlier, Bill’s approach to engaging students in reading was a direct contrast to the ways in which knowledge construction occurred in relation to math and science concepts in his class. Integrated through a collaborative teaching effort involving Bill and a resident math/science consultant teacher, these domains were presented through a problem-based learning pedagogy, with concepts selected for study based upon their relevance to particular projects students were tackling in the course. The structure of participation was collective, rather than individual, and both AB and the consultant teacher used their interactions with students to draw them into posing questions and finding possible solutions for increasingly complex issues.
Since the laboratory part of the course, as well as the textbook, presented challenges for Drew, the emphasis on the textbook and the osmosis model used to foster comprehension resulted in his struggle in the course. The following exchange, during one of our conversations, makes this evident:

**MA:** You know, this book is huge (I know it!) and you’ve got a lot of reading before the end of the week. What do you do, how do you approach..you know, your friend isn’t also taking this course! How do you study for this?

**Drew:** This? I mostly read the chapter summaries, because each chapter’s 40 pages, with little text and big pages. So it would take a good 2 days to read it whole. It’s really a tough book. I basically don’t read it at all. I just read the chapter summaries, and then I skim for answers.

**MA:** Do you take notes while you’re reading it? Do you own the book; can you mark it up?

**Drew:** No, no, the book is 150 bucks, so.

**MA:** Is it harder because you haven’t worked..I know there’s a guy in your class who’s working for [a local HVAC company].

**Drew:** I know a lot of people have knowledge from experience. (MA: That must be hard!) Yeah. A lot of their parents, one has a company in heating. One’s an electrical engineer. One’s maintenance. So they’re doing a lot of work in the field, so they know a lot already. (Interview, 12/4/06)

Without prior knowledge but with a sense of his strength in “fixing things,” Drew tried to find a method that would help him integrate the laboratory experiences of the course, with the conceptual base introduced largely through text study:

**Drew:** Well the hands-on stuff I’m pretty good at, cause I like fixing stuff. And I’m pretty good with my hands. Just that, the classwork, I’ve gotta go back and look through my notes at home, and a lot of the stuff we do in the lab, I learn a lot more of the stuff we do in the lab than I do with my notes, during note taking time.

**MA:** Do they correspond usually? Do you go out and do stuff in the lab, like in this period when I’m talking to you, would it be right from the notes (Drew: No [he chuckles]) or is it pretty different?
Drew: Like we were doing heating in October, but we’re still working on air conditioning. [I laugh, he laughs] But, well, so it takes a couple months, about two months to catch up. (Interview, 12/4/06)

Literacy and Learning Across Activity Settings

All of the focal students spoke in detail about engaging in text-based experiences outside of their CTE studies, or using textual practices learned through CTE studies to enhance their academic and non-school learning interests. Such experiences demonstrated how these students’ approaches to learning reflected many of the qualities that teachers expect to see among agentic, motivated, literate learners. Yet, of this selective sample, only Tanya (of Regional Occupations) positioned herself as a successful literacy student. Indeed, despite having passed the English Regents exam and thus achieved the State’s college-prep literacy standard, the Rural Tech students were involved in the CAI remediation effort, based on low TABE reading scores when they entered CTE in 11th grade. In the final section of this chapter, I explore the third theme: crafting productive and effective literacy biographies through and across contexts. Specifically, I examine how three students – Drew, Tanya, and Lisa -- viewed relations among CTE, academic contexts, and activities undertaken largely outside of the formal learning of school, as constitutive of their literate identities and capacities. In what ways did students’ participation in particular activity systems seem to foster literacy growth? And, in what ways did – or could – certain kinds of activity make visible students’ literacy competence, so it could be marshaled as a resource for their learning and development?

Academic-Occupational Synchronicity, Yet Misunderstood at Home School
According to Pat, the English teacher who had initiated the effort to integrate English with CTE in Regional Occupations, the college English educator on the English Advisory Board “feels as if we are right on here. She thinks that some of our students that come out of here and go into the community college are very well prepared” (Interview, 3/15/07). It became evident that Tanya agreed with this sentiment, finding the literacy demands of her CTE program to rival or exceed those of the academic courses in her high school. Some of the examples of reading, writing, and communications that Tanya pointed to in our interview around her CTE culminating portfolio demonstrated this well. Seeing how Tanya experienced the integrated English curriculum within Health Occupations further illuminates this idea.

English was integrated in Tanya’s Health Occupations class one day per week, when Becky, one of the onsite English teachers introduced in Chapters Five and Six, assumed teaching duties for the day. Since she had just one day each week to teach English content, Becky assigned work that she expected students to complete prior to her next teaching visit. Apart from her presence in the classroom, Becky also consulted with Tanya’s teacher to help her learn to diversify the range and depth of literacy activities and strategies used to teach the occupationally-specific content of the course.

Completing the homework and projects identified as “English” work was not a problem for Tanya, and the literacy demands of the course itself – including use of a college-level textbook – did not overwhelm her. Tanya noted that a number of her peers, however, struggled not only with the reading and writing demands of the course, but also with what she called the “college style” teaching and the lag-time between Becky’s presence as a teacher in this course (Monday to Monday). To excel in this environment,
students needed to gain autonomy; they needed to be able to structure their time between Becky’s visits so they were prepared for her each week. Based upon the many documents stemming from work done through integrated English that Tanya included in her portfolio, she appeared to be someone who had mastered this demand for autonomy in learning.

As I outlined above, Tanya took a great deal of time to describe how her program had changed from grade 11 to grade 12, from a situation that “made it like a classroom thing,” similar to her courses in high school, to one that was “more at a college level,” requiring a great deal of initiative by students to “look up things,” complete assignments through research conducted outside of class, and more. Despite this, Tanya downplayed the significance of a “Top 10” achievement reflected in certificates and awards in her portfolio, because her overall GPA was lower than those of her academic-based, home school peers. In spite of her ability to earn integrated credit in English (and science) through her CTE program – credit ostensibly issued based upon learning and teaching that was equal to the coursework offered in academic courses in the high school – the value she assigned to her achievement appeared to be tenuous.

Tanya shared that she regularly found herself defending the fact that she could earn academic credit in English through CTE when she discussed it with peers who were not in this situation. For example, she compared the senior-year research paper that her peers were required to complete in their academic class, with the research paper she wrote as part of Integrated English in CTE. In general, she felt the writing in CTE, from technical analyses to reports from internship sites to goal-setting papers, taught her how to be reflective as both a developing worker and as a learner. In fact, these types of
writing experiences prompted students to use reflection to hone insight and skill related to their CTE field, while “home school focuses in the 12th grade year, on different books they’ve read, different formats for essays,” and not on self-development or reflection at all (Interview, 6/7/07).

Some writing practices in CTE drew upon skills Tanya said she had learned early in high school, while others provided her with greater challenge as a thinker and writer than anything she had previously done in high school. Much like her 12th grade academic peers, Tanya had to write a research paper. The academic class “had to use different resources, and they could pick a topic on anything. Some people did like the Holocaust, Hitler, things like that,” she said. By comparison, Tanya related that, in her class,

We read two stories. One was ‘Teenage Wasteland’ by Anne Tyler and the other was ... ‘In Paul’s Case,’ by Willa [Cather]. And these two stories just showed, the basic, how it could be interpreted, how their needs weren’t met in both stories. In ‘Teenage Wasteland,’ it was about a boy who was a troublemaker, and his parents did everything to help him, but yet he still ended up running away in the end and they never heard from him again. ‘In Paul’s Case,’ he was a boy who sort of just stuck out. He did things to irritate teachers, but never pushed it to that limit. And, at the beginning of the story, it started with him in the principal’s office. He had a flower in his pocket, and at the end, he ended up killing himself? And at he end, he had that flower in his pocket, and he buried it, and then he killed himself. But. It was this whole journey, and you had to show how Maslow’s hierarchy of needs was met and how it wasn’t met, and then we used three organizations. I used SADD, [local domestic violence prevention agency], and WIC [the federal nutrition support program, “Women, Infants, and Children”], and I showed how they met needs. How, if those organizations were around then, then maybe it could’ve made a difference. So. (Interview, 6/7/07)

Tanya explained that part of her ability to complete this project stemmed from the strength she had as a systems thinker (this idea also was introduced earlier in this chapter). Yet it also was her prior success in English that led to her accomplishment with this complex research endeavor. Her English classes taught her to annotate as she read, to define new words using multiple strategies, and to actively trace symbols and other
literary devices. Drawing from this base, “that’s what I did throughout the whole entire story [as she read in Health Occupations’ English]. She didn’t say anything til we were halfway through, but I’d already been doing it, so, it was just habit for me. And I’ve been doing it throughout the whole two years” (Interview, 6/7/07).

Tanya was able to marshal not only her will to succeed as a learner, but specific strategies from her past and present, academic and occupational, learning fields that could help her achieve this. It seems that the combination of being a particular kind of learner across the academic-occupational divide, and being this kind of learner in a CTE context that organized itself to appreciate and enhance it, led to Tanya’s development and growth in literacy. Paradoxically, being a student with a less-developed sense of autonomy as a learner, especially in relation to integrated English in CTE, could leave students in a bind, since the English teachers were only present once per week. Other visions of connection around literacy across the occupational and academic spheres would seem to be beneficial to engage students with a wider range of skills and capabilities.

**Agency in Learning, Despite Struggle**

In contrast to Tanya, Drew did not discover practices of reading and writing that gave academic and occupational learning a feeling of coherence, or that elicited his tactics for using literacy to learn in avocational and leisure pursuits. Drew’s HVAC program, like all CTE programs in Rural Tech, offered students the potential to earn their final unit of academic credit in math/science/technology through CTE. Despite this, Drew chose to take an additional mathematics course in his high school, because he felt it would prepare him better for college-level courses than the HVAC-integrated math course alone would be able to do. Thus, he seemed to act with agency to shape a pre-
college set of experiences that would support him as a learner in college. He did this, from all that he told me, without specific guidance from school counselors or parents. He did find support with making some curricular decisions and investigating postsecondary options through “Vocational Education and Services for Individuals with Disabilities” (VESID), a State-run, transition planning that Drew recognized as a helpful resource for him. Moreover, Drew stressed that he had two “genius friends” who excelled academically and with whom he regularly studied. While these friends did not tell him which courses to take, they supported him academically and he returned the favor, sharing this with a good deal of laughter. Both friends, according to Drew, lacked common sense, which he had in abundance:

Drew: Well I have a lot of common sense. I know when, I know when to stop. I think I’m, I think I’m very smart, outside of the bookwork. Like, my friends are very smart. I have a friend that has an IEP too, but, he just left to go to NEIGHBORING SCHOOL, but he’s smart in the books, but he’s not smart in the outside world. And my other college friend, he doesn’t have a lot of common sense either.

MA: The guy who’s a genius?

Drew: Yeah, he knows everything in the book, but you get him in a car and he’ll run stoplights. (Interview, 11/15/06)

Upon meeting Drew, I expressed my curiosity about his enrollment in HVAC, given what clearly was his passion for learning about physiology. He explained that he visited HVAC and a few other programs prior to enrolling, but was not aware of a newly-initiated “New Visions” program in Rural Tech called “Allied Health.” Allied Health was designed to focus more on science and math related to health studies, rather than on imparting particular vocationally-related skills and certification possibilities for health-related jobs. In Allied Health, students explored health careers broadly, as well as health-
related programs at the college level. This program was one initiated after the 2001 CTE policy had taken root, and it was designed with a goal of attracting to it those students who would not have seen themselves, in the past, as CTE types, or who were middling in terms of their school performance and in need (according to experts) of career-related study options.

Had he known of Allied Health, Drew said it is likely he would have chosen to take it. [Interestingly, Tanya, of Regional Occupations, noted that a program similar to Allied Health that was offered in her school seemed inferior to the Health Occupations program in which she was enrolled, because it did not enable students to compete for health-career jobs right out of high school; students did not earn valued credentials, in other words.] Despite the fact that he viewed himself as a strong person at “fixing things,” he felt he was not well-matched to the concepts and skills central to HVAC. He had virtually no exposure to HVAC-related tinkering prior to enrolling, while many others appeared to enter the program with extensive experience, often because they had family members in HVAC-related businesses. These students also could look forward to jobs in the field, due to such connections, Drew claimed. The laboratory-related parts of the course were difficult, because he was unfamiliar with many basic concepts and technical jargon. Lab was the part of the course he most looked forward to, especially after beginning the program as a junior and discovering that the course textbook was one used in college programs. As described earlier, the text proved to be very tough for him to read, and the unexpected difficulties he faced doing the hands-on part of the course, as well, seemed to discourage him. Unlike the reports about internships and other worksite experiences that Tanya, Lisa, and Megan shared as occurring from the start of Grade 11
through the end of Grade 12 – experiences that they saw as beneficial because they helped them to make theory-to-practice connections -- opportunities for work-based learning in the HVAC course came about only towards the end of senior year. This situation heightened the importance of learning through the class and lab, for Drew, since it was the main venue of practice through which his knowledge was constructed.

For multiple reasons, Drew confronted challenges as a learner in the HVAC course. Thinking it would fit with his identity as a hands-on learner, he faced unexpected struggle in the lab, which accentuated the fact that the textual work in the course also was intense and difficult, and largely mediated through an unhelpful frame. What he gained from the program, by senior year, was a sense that he could apply what he learned in a military setting, gain work experience, and perhaps earn funds towards higher education.

Drew attributed the problems he had in HVAC partly to his lack of prior experience, and partly to longstanding reading comprehension problems he had in school, which made the demands for text-based learning in this course extraordinarily challenging. What seemed to be so incongruous with the school-based learning struggles Drew depicted, and the difficulty he had faced in crafting a pathway from high school towards college, was the richness and depth of his avocational pursuits, and the extent to which literacy helped to make them possible. Following an injury that took him away from sports for awhile early in high school, Drew took it upon himself to learn how to improve his physical condition, to recover from his injury and cope with some persistent problems that made it challenging for him to train. He described his extensive reading of health and sports training magazines and websites; developing email correspondence with a professional trainer he had met through a summer sports camp; and ordering online and
reading college-level strength and conditioning textbooks that were recommended by this contact, as well as those who posted to relevant message boards and blogs he consulted on a regular basis. In the midst of his discussion of this literate activity, Drew also mentioned that he had taken the PSAT exam in 10th grade, which made him aware that he needed to read more to prepare for the SAT and for college. Plagued by injuries that made it impossible for him to train for track and field over the summer, Drew also said that he found a summer job that was not physical and this, too, gave him the opportunity to read (Interview, 11/28/06).

Choosing to read for pleasure was not a new experience for Drew. For many years, he and his mother had traded books, particularly in the suspense and thriller genres. His mother, however, was an Oprah book club fan, and he took little interest in many of those books. He had just recommended that his mother read Of Mice and Men, since Steinbeck was one of Drew’s favorite authors. She did, and issued a (jokingly) stern warning that he should “never give her another book by Steinbeck” because the ending was so sad. Despite his love of reading and his practice of having reading be a part of his relationships, Drew faltered in English class. On the one hand, he attributed his difficulty to the lack of choice about what to read. On the other, he found it nearly impossible to assume the literary analysis stance that structured the experience of reading in English. These, he said, led to his inability to “[comprehend] a book. I usually score in the low 70s” on tests requiring such analysis (Interview, 11/28/06). For Drew, the techniques of teaching and learning in English interrupted the flow of reading. Stopping every few sentences to discuss (or to be told) what metaphors and symbols to pay attention to made his attention wander, leading him lose the rhythm of the story or the big picture that
actually did interest him. “I’ll get that [the symbolism], but I won’t know what’s going on in the story. I’ll read the chapter but I won’t know what’s going on, [and then] I’ll completely miss the metaphors” (Interview, 11/28/06).

The challenges of the reading practices that he encountered in such an academic context resulted in low English grades and a feeling of low self-efficacy, from all that Drew shared, regardless of the extensive reading of varied kinds of material Drew pursued at home. All of that activity, he claimed, was just “a hobby. Everything I see as a hobby, I pretty much don’t see as school,” and, by extension, it largely was not something he could quite value in terms of seeing himself as a capable reader (Interview, 11/28/06). Yet he could not quite accept that his struggles with comprehension were his alone. In other words, he wondered why teachers did not help to make this style of interpreting more accessible. “The English teachers at our school think that if you read you get better,” Drew declared. “But if you don’t know how to read it then I don’t think it helps you” (Interview, 11/28/06). Against these struggles, Drew continued reading the texts and authors that interested him. Among these were One Flew Over the Cuckoo’s Nest, and his committed reading of Steinbeck and Ray Bradbury:

If I like something, if I’m interested in something? I love to read it. But if it’s something that bores me? I usually, I’ll read it but I’m not interpreting … so I’m just reading, like, words, I call it. So, if I’m reading one of my favorite books, or a writer, I’ll pay attention because I think he’s a good writer. I don’t know it’s kind of, mental [laughs]…. and another thing is, when I’ve read, I usually stick with the same authors, like five authors, and I read a lot of their books, and I know what they’re trying to say, instead of a new author, who could be hiding, like foreshadowing something, and I wouldn’t know it. (Interview, 11/28/06)

Drew made a distinction between understanding and comprehending. The first grew from his own investments and interests, the latter from the reading practices at the center of English as a discipline. Without a means to connect the reading he chose and understood,
to the expectations of being a successful English student, Drew’s literacy identity was fraught.

By senior year, Drew had completed all of the Regents requirements in his academic courses and, with part of each day devoted to his off-site study at Rural Tech, he found himself in an English course that he described as largely devoid of reading. For the most part, his class concentrated on career-related tasks, which he found uninspiring. Compared to the previous year, when he had read at least 14 books -- “tough reading,” as he called it – the current year offered little challenge. It did not hold his attention or interest, despite the fact that he was enrolled in an occupational program and might appear to be an ideal candidate for a career-related English course. At the same time, his formal English course instruction offered little by way of supporting the very challenging reading of his HVAC course, and it made nothing of his continued pursuit of knowledge in the strength and conditioning/health fields. Resource room, in fact, repeatedly came up as the most stable and supportive learning environment that Drew encountered. In an informal conversation with his teacher late in the year, I discovered that she regretted not doing more to help Drew look at college options that were more attainable. She had supported him with the PSAT and SAT, since he had accommodations, and she helped him every step of the way with day-to-day coursework. The larger contexts structuring his capacity to make plans eluded her, however, and there appeared to be no formal mechanism for her to connect productively with Rural Tech, despite their very close geographical proximity.

By the time of our senior-year conversations, Drew once more excelled in varsity-level sports in school. He did not, however, figure out how to connect the reading,
writing, problem-solving, and critical thinking embedded in these pursuits with finding success in CTE or to making a post-secondary plan for learning, although this seemed to be of utmost interest to him. The challenges Drew faced in his high school courses, including HVAC, did not jibe with his depiction of intensive reading and self-directed study outside of school. His effort to succeed academically did not coalesce in a productive way, in terms of offering a view of a viable step towards college or a career trajectory. As the year progressed and the pressure to make choices about the near future loomed, Drew -- with limited guidance from school or home around higher education possibilities, and without a clear prospect for a job -- chose military service.

**Carrying Literacy Across the Great Divide**

Earlier, I described the reading and writing struggles that ECE student Lisa, of Rural Tech, revealed in our initial interview. A central theme of ECE for Lisa was that it had opened a door for her to forge a new literate identity, in quite unexpected ways. It did this despite the fact that, unlike Tanya’s CTE course, whatever literacy work occurred in ECE ostensibly stayed in ECE. Given the decision by sending schools’ Superintendents not to endorse English integration in CTE in the whole of Holmes County (see Chapter Five), no amount of literacy-related work that Lisa or her peers did in ECE could count towards their academic credit load. What I learned, however, was the importance of seeing literacy development within such a context, regardless of the official weight it could carry. In this regard, a number of Lisa’s experiences and reflections attest to the rich context for literacy growth contained within CTE, and the possibility there as well to support students’ development when they show struggle in some respects, strengths in
others, and a desire and motivation to be successful due to their commitment to the CTE field.

Lisa’s ECE classroom included a laboratory space designed as an early childhood center. For at least three months during the year of my research, ECE students collaborated with a regional family literacy program that served low-income families. ECE hosted the program onsite: parent participants of the program came to Rural Tech with their infants and toddlers, as did program providers, including adult educators and family literacy educators.

One of the most exciting and intellectually rich learning experiences I witnessed through all of my research occurred in this environment. Each morning of the program, ECE students would function as junior researchers. They were divided into teams, where some led developmentally-appropriate activities for babies and young children, and others used ethnographic observation and recording methods their teacher had taught them to write comprehensive field notes. Several students also observed the adult education class that parents were taking; in this context, students also took field notes to share later with their peers. These adult education observers offered a support role for the instructor by sharing relevant knowledge they had learned in relation to child development. This move effectively positioned them as parent educators, at the same time that they were able to absorb the content and structure of adult education.

At the end of each session, all participants would gather for shared reading on the rug. Students took turns sharing books they had chosen and rehearsed prior to the day, demonstrating dialogic reading techniques that were also being reinforced in the family
literacy program, through the work of the adult educators with parents enrolled in the program.

My field notes include observations about Lisa’s initial hesitance when interacting with young children in various centers of the ECE classroom. In a storytelling and drawing center, for example, she hung back, unsure of how to support a child to share a story and to elaborate that story, and unsure of how to scaffold his use of crayons to represent visually images and ideas that were part of his story. It was not until Hope – the lead administrator of the family literacy program – and a family educator with the program, who also was observing Lisa, gently modeled language stimulation and story elicitation that Lisa began to do the same. I noted Lisa’s need for assistance with these tasks, not sure of the extent to which they reflected shyness, or her own limited practice—from a personal or instructional view—in this type of listening, speaking, and composing work:

There are more ECE students than children today, so some groups have three teens and one toddler. In one corner, a group of teens, including Lisa, huddle around a large sandbox where several children play. The family educator associated with the program sits on one side of her, talking with the children. A few of the ECE students also sit down, and begin doing what the children are doing: pouring sand. They don’t speak with the children. The family educator does, however, asking questions such as ‘How many boards are there?’ and ‘And how old are you?’ prompting a comparison. She looks at Lisa, and seems to urge her to ask questions, as well, now that she has scaffolded a type of cognitive talk around the action. When one child throws sand and Lisa responds by saying her name, with rising intonation, the educator says, ‘That’s when you need to tell her what to do and mention why it’s not safe to throw the sand.’ In another interaction, the ECE teaching assistant shadows Lisa, who is silently watching a child play with toy farm animals. The teacher interrupts after a minute, laughing while she makes a ‘moo’ sound, then says to the child, ‘You do it.’ When she leaves, Lisa imitates what she has seen, striking up a conversation with the toddler. Hope joins them, continuing the play but also always adding explicit talk about concepts: they aren’t just scribbling, but scribbling with crayons, of particular colors—and a certain number of crayons, which Hope counts aloud.
After she leaves, Lisa mimics this talk, sounding more confident and adding other concept-related markers to the discourse. (observation, ECE class, 10/20/06)

Several times that term and later in the year, I talked with Lisa in-depth. In an early interview, she shared that she absolutely hated oral reading in her academic classes, and found herself increasingly isolated by her academic struggles, despite the fact that she read a great deal on her own and enjoyed writing essays. However, through the ECE class and its activities, as well as the practicum/internship work she was engaged in from the time she started her program, Lisa learned how to enjoy reading aloud and how to do it fluently; how to use texts as sources for teaching in ways she had infrequently experienced herself, as a child; and how to both teach and learn from – to be literally scaffolded by! -- her students:

Well I don’t really like reading in front of other people, because I get all tongue-tied and I’m kind of a slower reader. But it turned out in the end, I came around it, and really conquered my fear. I kind of just do it now. It’s not as hard as I thought it would be. With the children, they all look, and are kind of supportive. Kind of like, I’d rather read to little children, cause they’re so attentive. Where with high schoolers, it’s just kind of like, do I have to do this? Yeah. (Interview, 12/11/06)

Lisa also spoke eloquently about the impact of her ECE studies on her performance and engagement in English 12, which she took at her high school and not in Rural Tech. In fact, we had moved on in a conversation where I had posed questions related to the links between ECE and her academic classes. Lisa pressed us to return to this topic, resulting in a lengthy exchange that I share in full:

**LISA:** And back to an earlier question. How do I use like this [meaning BOCES] in like English? Like book report stuff, and you have to be creative. And here we use every different, like we use feathers and we use beads and like that. And, my book report, I used pipe cleaners and stuff like that. And, I don’t know, it kind of reminded me of the same idea.
MA: And that’s back in English class that you can do that? (Lisa: Mhmm) And is that something that carries over well into English? Is that seen as a whole…

LISA: …She was surprised. (MA: Yeah?) Mhmm.

MA: Tell me more, what was the book, just so I can get a picture in my head. What was the book?

Lisa: The book was “A Child Called It” and there’s a story plot and then there’s characters, and it was a mobile. So the plot was just, like, down, and it was all typed out and everything. And then there was a picture of the character, and then a description of the character right below it. And it turned out really nice.

MA: And you actually built the mobile, to do this. (Mhmm). Oh, okay. That’s cool. So in a sense it’s like you’re taking what you learned here, in some ways, about learning styles, visual, oral, and taking it back (mhm) into something that’s usually kind of paper (Yeah), and your teacher found that a neat thing to do?

LISA: Yeah. Yeah, and it took a lot of time, and I think that’s what impressed her the most, where other people just brought in posters and things like that. I really liked the book on a deep level, yeah. Those are the kind of things that interest me, plus it kind of applies to this kind of thing too [meaning her studies of child development, families, etc. at BOCES], cause it’s about a boy who’s abused, so, how to deal with that. (Interview, 5/15/07)

Recall that Lisa’s struggles in academic classes had resulted in a self-definition, as a literacy learner, that was mostly negative. What Lisa had achieved, through this particular experience – which she felt compelled to share, inchoate as she sometimes was – and through many other activities that were the fabric of the ECE course itself, was the means to forge a literacy pathway from CTE, and into the academic English course. She did this through her own actions:

(1) By using the content of her ECE program, specifically her in-depth study of child development and family-based child abuse, to provide a context for her response and interpretation of a text she had chosen to read to complete an English assignment
(2) By using creative *methods* that were valued within ECE for communicating her response and interpretation. Namely, by creating a mobile, she used art to demonstrate her knowledge of the text, and she described this multimodal production as best able to capture both the complex themes of the text, and her complex responses to it. This was an approach she said she never would have thought to use before ECE, yet it became highly valued within the academic sphere, in a class where CTE and non-CTE students learned together.

(3) By realizing the *importance* of what she had done as we held this research conversation, which means she had found a way to act with a degree of autonomy and agency as a literate learner, across what often seemed to be the enormous gulf of academic and occupational discourses and ways of using them.

**Summary**

Lacking the means to earn English credit within ECE, Lisa’s experience speaks to the urgent need to investigate the contexts for literacy reform in CTE beyond this single model, no matter how “modal” it appears to be throughout the research and practice literature. To enhance the possibility that students can learn to knit together their literate experiences in such rich and productive ways, they need knowledge and guidance. The notion of what counts as integration needs to be broad to effect such change. Resources need to be available in the form of teachers, counselors, learning coaches, and more to inspire and support the developmental goals of dual reform, within and beyond the level of promoting curriculum integration within CTE courses.

Student and teacher improvisational practices fostered literacy across domains of schooling, work, leisure and other learning environments. Support for improvisational
practices, in fact, could be viewed as a goal of literacy reform qua CTE reform. Perhaps Lisa’s long history of being a “closet essay writer” was a resource that contributed to her adroit transfer of practices across sites of learning. Drew also was a reader and writer outside of school. His depiction of the types of reading that interested him and the ways in which he followed the literary style of authors across their works stood awkwardly against the struggle he faced to become part of the literary interpretive community of his high school English classroom. He needed support to learn how to participate in specific reading practices demanded through the disciplinary frameworks of particular subject areas. He also needed to learn how to make use of his well-honed, improvisational approaches from informal learning contexts, within the unfamiliar school situations that made unique, disciplinary demands on him as a learner.

For both students, having such agentic activity valued under the aegis of “integration” would be beneficial. Getting help from tutors, teachers, or peers to further extend their uses of literacy practices across contexts and make use of “bordering literacies” also would support their literacy development. This term refers to an approach developed by Ivanic and Satchwell (2009), in their work with the “Literacies for Learning in Further Education (LfLFE)” project in the U.K. The research and learning team assumed at the outset that student learning would improve the more curricular activities matched their non-school literacy practices. What they discovered, instead, was that some curricular practices could mesh easily with such practices, while others could not. The notion of “boundary crossing” assisted the team in figuring out which aspects of curricular practice could be “networked” with everyday literacies, and how this could unfold:
…we identified opportunities for ‘boundary crossing’ in this respect: some of the literacy practices for learning in college were, or could be ‘networked’ with students’ familiar practices through changing the pattern of participation to make it more collaborative, possibly even involving the same relationships as in the students’ out of college literacy practices. In this way, the set of elements of literacy practices…makes it possible to conceptualise networking a among situated literacy practices. (p. 104)

One fundamental shift this study uncovered was the need to see the academic-occupational integration issue not as one of bringing theory into practice, as it often is construed, but as one of making practice theoretical. In other words, doing literacy-based work in occupational contexts often meant textualizing occupational work, which required not only the development of particular skills to complete, but the growth of particular processes of identification with the practice of using literacy as a means to explore a work process. Frequently, to do so was to engage in a practice that was unlike the job itself, since the job had been textualized to make it an object of study (a distinct type of labor). Of such textualization and the work emanating from it, the authors assert, “This transformation is in harmony with some students’ practices and sense of themselves but can cause difficulties for others” (p. 114). Noting such difficulty, it became possible to see how much more than curriculum was involved in the Further Education context of occupational-academic integration. By extension, it grew clear that there was considerable room to expand the role of students’ varied literacy practices to help them acquire the skills and embrace new practices that were integral to course success. No particular content or material was presumed to be ideal or canonical to achieve this end; rather the team-based research around “bordering practices” of literacy enabled a process to unfold that held both personal meaning and value for students, and positioned them to do new and powerfully “resonant” things with literacy (p. 121).
As I suggest in the final chapter of this study, helping youth to construct the knowledge and dispositions needed to cope with the uncertainties of risk society must be at the heart of discussion about rural, work-oriented youth under dual reform. This chapter has looked closely at several students’ experiences of the ways in which rural, work-oriented youth actively construct themselves as adults, and the resources – as well as gaps in resources – they negotiate to do so. As indicated in the introduction to this study, I conclude with discussion of the following question: What are, and what should, we be doing in schools to support the widest range of ways for young people to develop happiness and competence, let alone literacy, as they anticipate the transition to work, further education, and civic life?
Chapter Eight

Enhancing Literacy in CTE: Discussion/Conclusions/Future Directions

Discussion/Conclusions

The desire expressed by participants in this study to support the development of autonomy, expertise, and stability among rural, work-oriented youth indicates a need to sustain and nurture aspects of CTE that help young people gain traction under volatile social conditions: the factors at the center of “risk society” theory, discussed in Chapter Two. It also suggests a need to develop new resources, or new uses of existing resources, to support rural, work-oriented youth who are making postsecondary transitions. For many working-class young people, participation in formal learning after high school occurs simultaneously with their continued movement into and within the workforce (Tannock & Flocks, 2003). Expanding the role of rural CTE Centers, enhancing and broadening adult education programs so they are more inclusive of older youth, developing noncredit pre-college and college courses to promote college-going among work-oriented youth, and enlisting workplaces that employ youth to build capacity for continuous learning are all measures would that would strengthen the guidance, informal instruction, and social networking opportunities for youth that are needed to improve how we foster learning cultures viewed as crucial for development.

As this study illustrated, although all CTE programs applying for State approval were required to produce curriculum matrices and crosswalks that outlined how particular CTE learning activities were associated with the learning standards of academic/content area fields, it is the potential for a CTE course to award academic credit has come to
signify CTE growth and improvement. In Regional Occupations and Rural Tech, administrators were eager to detail the steps taken to develop integrated courses. They stated that the presence of such courses helped to reduce the stigma historically attached to being a student in BOCES, and helped to attract students who were unlikely to be interested in CTE otherwise: students invested in academic study, as much book-smart and hands-on, and more. All students now have been deemed Regents students by virtue of the graduation policy mandate. Some CTE courses now are designed so they potentially can award academic credit. The boundary between academic and occupational study perhaps has been blurred in an unprecedented manner. As noted in Chapter Five, CTE Administrator Janet Adams suggested that Rural Tech’s forward-thinking approach to contextualized math and science instruction garnered enthusiastic support from the academic content area teachers and administrators of Rural Tech’s component schools, inspiring them to request the assistance of CTE to improve teaching methods within traditional math and science classes. Take note of the directional markers here: making educational recommendations from CTE to the academic domain represented a seismic shift. Perhaps it provides a glimmer of hope that educators saw the transformation of dominant institutions as important as – and as feasible as – reforming marginalized ones. Both of these objectives, theorists of risk society suggest, are absolutely crucial to effect enduring change.

CTE leaders in both of my study sites took pride in sharing the detailed curriculum crosswalks that were created for every program in their buildings. Thick binders containing the curricula filled their bookshelves, a testament to countless meetings that had taken place over several years as teachers worked to articulate the
detailed learning goals central to each occupational curriculum. Such curriculum guides had not existed prior to this effort and they took painstaking work to create. More than symbolic, the guides and curricular matrices provided material evidence of CTE’s relevance in a high-stakes, academically focused era.

“Integration as negotiation” and “integration as remediation” were categories I introduced in Chapter Five to capture differing approaches to literacy reform used in Regional Occupations and Rural Tech. Two additional concepts took shape as I conducted analysis of data: “working class” (with ‘working’ understood in the verb form) and “redistributing literacy.” I analyze both of these concepts has enabled me to examine the situation of work-oriented youth and of youth literacy development more deeply in relation to curriculum integration and to broader questions about youth development in risk society. That is, they point to the problematic of how to envision the structures of youth-adult and school-postsecondary transitions, in relation to literacy learning, under conditions of individualization and “responsibilisation” (Kelly, 2001) in risk society -- the possibilities as well as new struggles endemic to it.

**Working Class**

New York State policymakers created an approach to academic integration in CTE that is mentioned by national organizations promoting CTE reform, especially for the collaborative teaching model that connects academic and occupational teachers in course design and instruction. The development of specialized or integrated courses in CTE serves as the cornerstone for increasing the rigor of CTE under the State’s approach. In fact, when describing the measures it has taken to change CTE, the terms “rigor” and “academic” appear together frequently throughout the State’s Perkins IV application, a
discursive pairing that mirrors the language of the Perkins IV federal legislation and a good deal of high school reform policy in general (Grubb & Oakes, 2007). By linking academic rigor with curriculum integration and, in particular, with development of integrated courses, the State has assigned high value to this form of educational practice, but remains silent on other approaches that could be used to support literacy and CTE youth development.

There has been minimal effort made to study CTE youth and the conditions that can foster effective development, precisely at a time when such information is needed both to make a strong case for dual reform and to promote myriad strategies that can support students in diverse school settings as they move toward postsecondary change. Study participants in Rural Tech and Regional Occupations were steadfast in their commitment to promote CTE as a critical element of secondary education, and to use resources creatively to meet student learning needs. Educators welcomed the opportunity under dual reform to change CTE in ways that perhaps attracted a broader range of students, especially those who would fit into the category of dual concentrator (pursuing both college-prep and occupational course sequences). But they did not want to deter from CTE either students who lacked these credentials, or students who saw entry into the workforce as their next step beyond high school.

By recognizing and supporting such students and interests, I suggest educators were “working class,” taking action to ensure the working-class students that their programs had long served were able to thrive under the terms of dual reform. I grew aware of this not because most educators talked directly about class, though some did. Rather, more of them referred again and again to the need to act in ways that showed they
were “being realistic” (a focus of Rural Tech discourse) and “making sense” (Regional Occupations) as they mediated reform within the contexts of their communities and the students who gravitated toward CTE. I examined dimensions of “making sense” in Regional Occupations in Chapter Five. Here, I focus on the concept of “being realistic” and its import for theorizing literacy reform in relation to CTE reform.

What was “realistic” and “sensible” to educators reflected their readings of the social, economic, and educational landscapes that structures how students grow up. In my study sites, educators knew that the academic course demands of dual reform meant they needed to do more to balance the expectations that structured dual reform policies, with their role to support student growth. In contrast, policymakers clearly viewed dual reform as a tactic that could alter the educational part of the landscape and, in so doing, they hoped reform would change the nature of educational participation, especially for students they regarded as less engaged by or invested in academics.

For Sue Dutrow, principal of Rural Tech, ongoing debate about the cut-score issue for the Regents exams exemplified some of the tensions embedded in dual reform:

I don’t know who is putting the pressure on where. I think the concern is, and I think that’s why they’ve held it at 55 for so long, is that if, the fear is if you ratchet it up to 65, you’re going to have this massive outcry from parents and the public about students not graduating from high school. And yet I look at some of these tests, and they’ve dummed-down some of them. And there’s no question they’ve dummed them down. And for what purpose? The students, it would be nice in our society if everyone were equal and everyone had the same opportunities, but they don’t. And the reality is, some people are going to do well on these areas and some aren’t, so let’s be realistic and look at that the way it is. And, and have, I’m not saying you should go back and have a Regents level and a school credit level, but have an alternative to what is being set up right now. (Interview, 12/15/06)

“School level credit” referred to the curricular track that many vocational education students followed in the past. Sue questioned the use of the Regents exams as the primary
mechanism for measuring students’ capacity to graduate, but she felt there was little that she or anyone could do to reverse course since the all-Regents mandate was unlikely to be overturned. She was committed to expanding options for students, however, and her statement made it clear that a return to “school level credit” did not constitute a solution to the problems of the Regents mandate and the cut-score debate.

Sue, along with many other Rural Tech participants of this study, stressed the dire need to pay attention to what she termed “raising standards without reducing options” for the youth typically educated through CTE particularly given the challenging rural economy and the challenges, for some, of higher education. “Let’s be realistic,” Sue asserted, using a term that some of her colleagues repeated when they discussed the effect of the 2001 CTE policy on their teaching and on student learning. Others appealed to the notion of “who students are” to describe the nature and role of CTE in educating youth. One counselor referred to “the income base of the students” as she described the diverse array of personal, educational, economic, and social needs of students under the single roof of Rural Tech (Interview, 12/15/06).

Sue and others in the present study made no mention of curricular tracking, and did not refer to CTE students as working-class students. Instead, they concentrated on describing the intricacy of the day-to-day work of CTE programs to engage and support youth. The historic link between vocational education and curricular tracking remains salient in discussions of high school reform and CTE, as does the confounding nature of poverty and low expectations on the aspirations of rural youth (CITES). In general, the concern about increasing academic rigor in CTE reform reflects educator and policymakers’ insistence that school systems not repeat what is widely acknowledged as
the racist, classist, sexist legacy of tracking (cf. Oakes & Saunders, 2008; Grubb & Lazerson, 2004; Apple, 1998). A push to see “who [students] are” might be viewed as backward-leaning, a signal that study participants believed in natural differences based on class that ought to be accommodated through offering varying types of education for varying types of students. Likewise, the emphasis on “being realistic” might be seen as a form of pragmatism that maintained the status quo around the education of working-class youth, rather than using policy directives to try to catalyze change. Rural Tech’s focus on the computer-assisted instruction program for literacy support, a move that seemed like an outright rejection of the curriculum integration effort at the heart of the 2001 policy, could be viewed as highly problematic, in light of all of these concerns.

However, the views and actions of Rural Tech study participants did not appear to reflect their belief in inviolable, class-based distinctions of competence or a refusal to engage the issues around rigor associated with curriculum integration under the 2001 policy. “Being realistic” (and “making sense”) instead spoke to the agility that Sue and others developed to deal effectively with reform demands, looking for opportunities to improve CTE while continuing to use it as they felt they long had done: to connect rural youth with postsecondary labor and learning networks. As I noticed during my year of observing in Rural Tech, a sense of needing to be visible to youth quite early in high school (even before high school) stood out as a new reality to Sue, in part due to the Regents graduation policy effects:

Classes are hosting 8th graders who are visiting for part of the day. Stopped by the guidance office to ask about the event. Two seniors darted in to return laminated cards, “cheat sheets” filled with facts and questions that they used to facilitate conversation with the 8th graders. “No one asked any questions!” one of the seniors reported, disappointed, though he also said it was a fun session. Both were, as the guidance counselor put it, “shop kids,” and they loved hosting these
sessions. I noticed [Principal] in the hallway, keeping order as the middle schoolers headed for their busses. She gathered a group and told them they “need to be planning now because if they’re missing classes, we can’t let you come here.” She then looked at me, and said, “Amazing, huh?” What she meant was that so much is now required of all students, with the Regents, that, as she said, “Kids may get shut-out of BOCES.” She wanted kids to have early exposure so they could start making concrete plans and see the connection between the coursework in school, in BOCES, and the value of trying to avoid repeating classes, needing AIS remedial classes, and more. She also agreed when I said 8th grade was a great time to get the kids to spend time at [our community college], saying, “It makes a lot of sense in this environment.” (Observation & field note, 10/23/06)

To define CTE reform as if it were class-neutral makes it more difficult to structure support around the issues central to working-class students’ lives (Lakes, 2009). Rural Tech’s use of a literacy remediation framework (through use of the CAI program) deserves scrutiny from a literacy theory and practice angle, but to deal effectively with the constraints educators faced in interpreting and enacting policy on local levels, a broader perspective towards the distribution of resources attached to literacy learning and teaching also is needed. This perspective must begin to frame issues in terms of the existing channels for further learning, but must also look to develop existing resources in innovative ways to address the instabilities youth face under processes that are changing (1) how “youth” is defined, (2) what it means to be effective in moving across status boundaries and the way that participation in institutions such as school and workplaces influence youths’ trajectories, and (3) the range and variation of literacy/communication practices available and used to form identity, relationships, and learning and work lives. This clearly is critical when we recall the concerns of youth to “find stable ground,” expressed in Chapter Seven.

Redistributing Literacy
The 2001 CTE policy emerged as a compromise at a time when policymakers and educators were trying to figure out how to handle the structural challenges of the all-Regents graduation policy, while trying to avoid a situation where dropping-out (or moving into GED programs) would become the optimal pathway for struggling students. The role of the policy as such a compromise has been overshadowed by the rhetoric of progress that tends to dominate accounts of dual reform. As a result, less focus has been paid to the challenges facing local sites in enacting policy-related change and building a range of possible responses to policy directives.

I used the category “literacy as negotiation” to characterize the guiding ethos of literacy reform within Regional Occupations, but the need to negotiate to enact reform was evident in both sites. Negotiations could be seen across four levels:

(a) **District** level, with negotiations between CTE and high school administrators over the options to permit students to earn integrated credit.

(b) **CTE building** level, with negotiations between CTE and academic specialty teachers, over curriculum content and practices/responsibilities for assessment, since academic content must be assessed by highly-qualified teachers in subject areas.

(c) **CTE advisory board** level, with negotiations between CTE academic specialist staff and academic advisory board panels, which operated as part of the ongoing ‘self-study’ engaged by CTE to help review integrated curriculum approaches, not only for the fidelity to academic instruction but for their networking and support roles vis-à-vis youth transitions to work and further education.
(d) **Faculty-student level**, where students participated in, and needed to make sense of, the nature of their own learning and literacy proficiency in a CTE course that had contextualized academics. Sometimes students were enlisted to become their own advocates in relation to using CTE courses for academic credit, as was the case, at times, in Regional Occupations.

Rather than seeing literacy only as a property of curriculum/instruction or of individual learners, this range of negotiations underlined the extent to which literacy was produced at and through varied junctures of practice, influenced by the extent to which social actors mediated change through individualist, curricular, or institutionally-based views of academic-occupational integration. As a goal for youth development under dual reform, literacy was spread-out across contexts and disciplinary domains. Models for supporting teachers and being responsive to student literacy learning needs, however, were limited, with the full-scale curriculum integration approach framing the discussion. Re-framing and enacting reform in myriad ways would, of course, require funding support; without it, teachers find themselves working at unstable, institutional interstices to help students, and students find they might, or might not, have their actual literacy needs addressed, or see the strengths and creative practices they bring valued.

Indeed, in both sites teachers used what Becky, an English teacher in Regional Occupations, called “gap times” to support students who struggled with literacy demands of CTE, high school, or both. Despite the use of curriculum integration as the tool to foster literacy improvement in Regional Occupations, doing so was optional for teachers, who could choose instead to offer the math/science/technology credit as an integrated element in their courses. Many students took English in their high schools, and some
were enrolled in more than one English class as they prepared to re-take the Regents exam. Some were enrolled in English-CTE integrated classes but still struggled with the demands. Others were in non-integrated courses and needed support to complete portfolios and culminating senior projects, required of all students (see Appendix E, an outline of the required “Business Plan” research project). The creative use of “gap times” – small windows of time available before school, during or before lunch (and A.M. students’ departures), and after school -- was crucial for offering students individualized support, and the need for it seemed to become more pronounced under dual reform. Echoing Belzer’s (2006) argument about using “just-in-time” tutoring support in adult education programs, gap time work enabled Regional Occupations to try new approaches to academic instruction under dual reform, but to do so in ways that took advantage of the newfound presence of academic teachers so that students with particular needs were not wholly left behind.

Given its focus on math/science/technology integration and the use of academic specialists only in these curricular areas, the scope of “gap time” for literacy support was considerably narrower in Rural Tech. Participants were acutely aware that the school would need to generate such support, if they were to move more actively toward requiring extensive written work as part of senior projects and certainly if they were to try to offer integrated English credit in CTE courses. The Early Childhood Education teacher in Rural Tech suggested a possible alternative: expand the relationship between CTE and high school resource teachers, who might be able to support the literacy learning needs of CTE students while they were back at the high school. A precedent existed since the Special Education consultant (hired in part to manage students’ work
with the computer-assisted instruction program), along with the school’s counselors, maintained a presence in high school Committee on Special Education meetings and with special education teachers working with CTE students. The creation of new partnerships and coordinated action required planning and instructional time, a means to collect and evaluate student learning in substantive ways, and flexibility to personalize curriculum so that it met student learning and transition interests, as much as institutional notions of particular transition pathways and literacy.

Attention to redistributing literacy across the academic-occupational boundary brings other issues to light, as well. Not only were expectations for imparting and expanding student literacy skill spread-out differently among instructors, but demands on students were re-shaped as well. In Regional Occupations, the English/CTE approach to curriculum integration exacted new demands for students to be relatively autonomous as learners. Each of the CTE-based academic teachers, such as Pat, Becky, and Kate, met frequently with their CTE teaching partners to plan and implement curriculum, assess student progress, and more. Given that CTE classes were held for a half-day only, teaching often was divided into a type of CTE-academic blend (taught by the CTE teacher) or academic-focused study (taught by the academic specialist, such as the English teacher).

In the latter case, teaching itself took place only once each week, for a 2.5-hour block. As Becky related, this meant students in English-CTE integrated courses needed to be able to work independently between the day she actually was present in the classroom and the day—one week later—when she returned. For students who struggled with the literacy concepts and practices central to these demands in the integrated course,
this structural condition proved challenging and resulted in a need for these students to try to find extra time with Becky to get help. With two English teachers teaching in numerous integrated courses; providing consultation and informal support for many others; and serving as the community college-certified English teachers of several specialized CTE courses (called “New Visions”) that operated outside of the typical BOCES environment (and enabled students to earn both high school and college credit), the strain on teachers’ time was evident. Literacy reform qua CTE reform could be strengthened if literacy support of CTE students and the curricular demands they encountered in CTE were distributed back to the sending high schools, or were woven into curriculum more evenly across academic and occupational spheres. ECE student Lisa had the fortuitous experience, in academic-based English 12, of a teacher who recruited Lisa’s occupationally-based literacy and learning as a resource for learning in her college-preparatory class. Such forms of sponsorship, which led to crucial recognition of Lisa’s competence and identity in this case, should be encouraged and valued as a central part of reform.

In Rural Tech, the Special Education teacher guided some students in the use of the CAI program, but students shared that he did not offer individualized instruction or follow-up discussions with them about specific literacy needs. Since the CAI was a web-based program, students could access it outside of Rural Tech. I did not get the sense from students or the counselors that a systemwide plan existed to encourage use of the resource in this way, although my pilot interview with a high school teacher showed that she was aware that some of her students were using the CAI program in CTE, and she encouraged students to use it in her classroom, if they had extra time in a class period.
The Regents graduation and CTE policies are viewed as progressive and forward-thinking, in that they demonstrate how to formulate a statewide approach that can balance academic rigor with support of work-oriented teaching and learning. New York’s dual reform strategy policy fits well with new visions of vocational education, or CTE, yet this study also has exposed many challenges posed by reform.

**Future Directions**

As reviewed in Chapter Two, the emphasis of the CTE curriculum integration research/policy literature with regard to academic subjects is on models that move beyond providing basic skill instruction or remediation of prior failure. This idea certainly can be seen as supporting the overall push to raise academic expectations and prepare students for diverse reading, writing, and communication demands of the labor market and higher education. The present study revealed how varied and competing interpretations about the nature of students’ literacy needs could enable both a range of possibilities for literacy **teaching** to take shape, or not, and – quite significantly - for particular forms of literacy **learning to be seen and valued**, or not. It grew clear that it was important to study literacy practices and student development relative to what type of learner and learning was implied by the “hyphen” of academic-occupational study, since this played a role in the manner in which dual reform was enacted locally in CTE and high school programs. This study points to a need for further investigation in several areas.

**Literacy Profiles**

It would be beneficial to create profiles of learners that can help chart the diverse levels of literacy proficiency of students when they embark on CTE studies, and serve as
a resource for curricular and professional development planning. Among the four focal students featured in Chapter Seven, two discussed at length their ongoing struggles with reading comprehension in relation to particular disciplinary discourses. One other stated she had few struggles, in this regard, but also shared details about the prior assistance of a resource room that she felt had supported her ability to succeed in Regents-level courses and on Regents exams. Of the larger student group studied but not featured in Chapter Seven – all Rural Tech students – several had learning disabilities and Individual Education Plans (IEP). Beyond these participants, CTE teachers described the literacy challenges of other students in their classes, ranging from decoding and fluency difficulties, to vocabulary, comprehension, and writing problems.

A good number of the students mentioned by teachers had dropped-out of school and were part of the GED/CTE youth program, including two of the students in my overall sample. In all, they represented a “mushrooming” group of students in Rural Tech, according to Principal Dutrow (Interview, 12/15/06). Youth from ages 16-19 were streamed into a specialized GED program that required them to participate in CTE as well (adults, of course, could opt only to study for the GED). The two CTE and GED students of my sample struggled with decoding and fluency and, although the GED preparation class clearly provided some individualized support, the focus was on passing the GED rather than providing developmental literacy instruction. Ironically, these two participants, whose access to the youth-focused GED was sponsored by their high schools, were not able to access adult literacy programs due to the way that funding streams defined who could be participants in varied programs.
Youth are distributed within CTE across high school and GED environments but one unit in occupational classes. Development of literacy profiles of a representative sample from this “unit” would (a) help CTE teachers plan instruction; (b) support English teachers who collaborate with CTE teachers but may not have the background to address specific literacy issues; the profiles might help them target the support they provide in “gap times” or lead to development of specialized tutoring; (c) offer insight, generally, into the struggles of older youth in relation to literacy – struggles that may play a considerable role in students’ decision to leave high school and, perhaps, as the final evaluation of New York State’s 2001 CTE policy suggested, to drop-out of CTE as well:

CTE administrators and counselors attested that a fair proportion of CTE leavers struggled with the reading demands of the curriculum. According to CTE staff, while reading remediation was available, districts were less willing to absorb the costs of supplemental services at off-campus CTE programs—particularly in times of fiscal downsizing. (MAGI, p. 10)

**Adolescent Literacy Specialists and Redesigning English 12**

The focus on integrated curriculum and collaborative teaching, under dual reform, led to the hiring of two English teachers in Regional Occupations. These teachers clearly fulfilled many important roles when it came to the vision of integrating challenging reading, writing, and communication practices within CTE, in traditional programs and in the “New Visions” stand-alone programs designed to offer students both high school and college credit. Principal Jim Green also pointed out the presence of para-professionals in a number of CTE classes, present to support individual students with IEPs. The role and function of para-professionals did not appear to deliberately change as the academic component changed in some CTE classes, yet Jim suggested more students benefited from the help they could provide. In a sense, this role developed organically as
curriculum integration became more widespread and embedded. It is an interesting aspect of Regional Occupations and it deserves study, in terms of effects vis-à-vis curriculum integration.

In relation to the present study, all of these types of examples signal a need to investigate what literacy specialists could add to the learning environment, particularly in light of the range of forces shaping CTE under dual reform. The English teaching staff in Regional Occupations admitted the limit of their role to support students with literacy struggles, given their once-per-week presence in integrated English classes. Further, the model of placing English teachers in CTE to collaborate with CTE teachers emerged as a constraint on Rural Tech as it tackled literacy issues. Recall that its component high schools would not support such a plan and risk losing students who would fulfill English credit in the high school itself. These schools were too small to bear the loss, which could threaten existing teaching loads.

Under dual reform, serious attention to the range of literacy learning needs among older youth is warranted. This requires (a) a broader vision of the strategies that will improve student learning, and (b) resources to implement such strategies when the present funding formula cannot do so. A statewide approach to literacy improvement within CTE in Maine provides an exemplar, in this regard. Maine provides CTE teachers with systematic professional development in literacy instruction, as well as turnkey training to promote systemic change. It also places literacy coaches in CTE schools, and it is these specialists who work with CTE teachers to design integrated curricula. In all, this effort has created numerous, locally-rooted literacy projects that offer an impressive variety of opportunities to improve teaching and learning, and to spark and sustain a
developmental literacy perspective within CTE (see Maine Dept of Education, *Literacy and Promising Practices*).

The issue of district size affected Rural Tech when it decided not to integrate English in CTE as it had integrated math/science. Whether this is a more widespread phenomenon, perhaps affecting rural districts primarily, is an empirical issue that is worthy of future study. The question of how to focus literacy reform in relation to CTE reform – through English teachers, literacy specialists, para-professionals, or a combination – concerns questions of philosophy (what is the goal of curriculum integration?), exigency (how can CTE be sustained in a climate focused on academic achievement?), resources and size/scale issues, and, undoubtedly, more. Given the variety of student and faculty interests and needs in CTE that the present study illuminated, investigating the value of having onsite literacy specialists is warranted. It also would be beneficial to focus staff development efforts to produce ongoing collaboration between CTE teachers and adolescent literacy specialists, who may already be on staff in component high schools (see Ziemba & Emmerson, 2008).

A quick look at the research literature about reading and vocational education shows clearly that reading teachers were a staff presence for many years in vocational centers. Now is the time to think again about the forms of literacy sponsorship varying educators can provide for specific populations of students. In New York State, further study is needed to understand how the curriculum and pedagogy that typifies English and English 12 – the courses focused on literacy that CTE students take if they are not in integrated CTE/English programs – supports or constrains young people’s literacy
development. Students’ experiences of literacy learning will remain fragmented, unless there is a concerted effort to think and plan for cohesiveness.

**CTE as an Intermediary Institution**

In Chapter Seven, I discussed how some students improvised to make use of their literacy strengths and practices across the academic-occupational boundary. Improvisation and flexibility were not the property of students alone. A number of teachers, from the English teachers in Regional Occupations to Bill, the HVAC instructor in Rural Tech, emphasized how much their success as teachers depended upon their ability to adapt their knowledge and skill from the contexts of prior work, to their current roles in CTE. For example, the English teachers admitted they knew little about CTE when they started their assignments. As much as a process of developing learning goals for students, curriculum integration represented an ethos built around collaborative planning and teaching; it promoted inter-disciplinarity and in effect served as the bridge or “hyphen” of academic-occupational learning that dual reform hoped it would. Bill, of Rural Tech, prized the part of his job that centered on showing students how success in the work field depended upon their skill in taking risks and learning independently, seeking out resources to solve problems, and adapting to new situations. Not only had he done so to advance as a technician, but he continued to exhibit these traits in CTE.

The larger structures, policies, histories, and symbolic meanings that shape institutional cultures influence youths’ experiences and their own self-definition. Central to the youth-adult transition in risk society is the need for youth to exert control over the terms of transition, particularly since risk society clearly makes social mobility highly contingent upon factors beyond individual effort. A note I made during observation of
the Rural Tech ECE class reflects this painful reality, mired as it is in the utter
disinvestment in public higher education that persists today:

The ECE students completed a culminating research project and have decorated
the classroom with posters related to key thinkers in child development. One way
they approached this was to create them as “Wanted” posters, such as: “Lev
Vygotsky—Wanted for: Promoting the four basic principles of child development
[I’m not sure what this refers to but they know; it’s a theme I’ve heard all year];
Believing that culture affects children’s behavior and intelligence. Reward: FREE
TUITION TO COLLEGE.” This is both light-hearted and heartbreaking. All the
articulation agreements in the world won’t dispel this basic fact of having no
money to pursue something you know could be your right, next step—especially
when everything around you is trying to pound that message into you as well.
(Observation, 5/23/07)

Youth need support to foster dispositions that enable them to explore the ways in which
individual desires and structural realities influence choices about the future. They can
benefit from with relationships with teachers who, themselves, are working to combine
and re-combine experiences from varied domains of practice (school, work, community)
to fashion identity and knowledge (Heath, 1998).

In rural areas where few intermediary, community-based organizations might
exist to help youth explore options, gain skills, and network socially beyond high school
(Snyder, McLaughlin, & Coleman-Jensen, 2009), CTE institutions could play a more
central role in youth development, while youth are in high school and beyond. For
example, the Vermont community college system offers youth the opportunity to take
“Introduction to College Studies,” a free course designed to impart “college knowledge”
skills but to do so in a seminar-style, college-like setting. Successful completion of the
course may enable students to take a college course at no cost or a reduced fee. Some
high school CTEs regularly sponsor entire classes of students to take the course, making
these vocational institutions a central figure in expanding youths’ notions of further
education. A major goal of the project is to help non-college bound youth build a sense of themselves as college students, and to do so through a carefully structured experience that uses a college learning environment to examine how to be a college learner (J. Judy, personal communication, 7/7/07).

In Holmes County, where Rural Tech is located, it should not be difficult to introduce similar programs, but it takes will to direct resources in this manner and to bring institutions together in new ways to provide new types of services. Although it also is characterized as rural, Regional Occupations’ location near major highways, small cities, and some emerging industries – along with its history of effective cross-institutional collaboration – seems to enrich the foundation for young people to explore and choose from a broad range of options. It is not, in other words, as remote as Rural Tech, a simple fact of great significance when it comes to youth development and school reform.

The logic of reform expressed through the CTE and Regents policies makes visible some of the paradoxes facing work-oriented, rural youth and educators. My research uncovered how unpredictable the effects of reform could be, once specific scales, conditions, and contingencies were taken into account. It is possible to work within the logic of dual reform in different ways, but I believe to do so requires perspective and theory beyond “pedagogy in CTE” or “adolescent literacy” or “rural youth development” alone. Rather, new frameworks are needed that are able to reveal constitutive interconnections among these and other fields that impinge on the situation of literacy learning and development among rural, work-
oriented youth. We need to focus on the complexity at the center of the academic-occupational hyphen, especially the confusing and complex array of messages, practices, discourses, and resources encountered by youth who live in the space(s) between “academic” and “occupational” learning, and define what it might mean. This idea, I propose, is the true “subject” of dual reform.
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## Appendix B

**Ordered Situational Map:**

**Literacy Reform, Dual Reform & Youth-Adult Transitions**

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<th>Nonhuman Elements Actants</th>
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<td>College access processes (“college knowledge”)</td>
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</tr>
<tr>
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<tr>
<td>CTE “at the mercy of” high school admin. decisions/funding</td>
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<tr>
<td>Youth as protracted stage, no clear movement youth-to-adult roles</td>
<td>Rural dilemma: “Moving up means moving out”</td>
</tr>
<tr>
<td>Working-class youth face early press for self-sufficiency; abrupt, not protracted, transitions</td>
<td>CTE as heterotopia: space of difference, possibility; also marginalization; travel distances are limiting</td>
</tr>
<tr>
<td>Not enough time for CTE to add literacy or English to curriculum “Wish we (CTE) had students all day”</td>
<td>Work-based learning crucial venue for youth development</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Issues/Debates (Usually Contested)</th>
<th>Related Discourses (Visual, Historical, Narrative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should the same path to graduation be required for all? (Regents fosters “cookie cutter” approach)</td>
<td>“Risk Society” = expanded choices and opportunities amid “structured individualization”</td>
</tr>
<tr>
<td>Offering academic credit in CTE a compromise but may pose risk to high school FTEs in small schools</td>
<td>College required for good job, global competitiveness</td>
</tr>
<tr>
<td>Curriculum integration: occurs in CTE only; if not, students responsible for forging links between academic and vocational</td>
<td>Rural youth &amp; community as parochial, low aspirations</td>
</tr>
<tr>
<td>Literacy best addressed as individual skill OR social practice (type of curriculum &amp; activities; location)</td>
<td>“Some kids not cut out for college” – need CTE as viable option</td>
</tr>
<tr>
<td></td>
<td>Rural “brain drain” requires focus on high achievers (“leavers”) AND investment in “stayers”</td>
</tr>
</tbody>
</table>
APPENDIX C

SOCIAL WORLDS/ARENA MAP: LITERACY, CTE, AND DUAL REFORM

- Solid ovals = Arenas (major domains of action/investigation)
- Dotted ovals = Social Worlds (collectivities within arenas)
- Rectangles = Organizations (operating in and between social worlds/arenas)
- Dotted lines = Negotiations (among and between social world actors/actants & organizations)
APPENDIX D
POSITIONAL MAP

++

Fully Integrated

Offer possibility of earning academic credit in all programs. Use “gap times” to address individuals’ literacy needs.

Existence of “New Visions,” Career Academies, and other programs that fully blend occ. & academic learning standards.

POLICY

AND

DISCOURSE

ABOUT

CTE - ACADEMIC LINKS

Focus on individual students to remediate literacy deficits. Also, individual students negotiate possible links between CTE & academic spheres.

Fully developed curriculum crosswalks in all programs, but without offering academic credit possibility in CTE.

Fully developed curriculum crosswalks in all programs, with potential to award academic credit contingent upon inter-institutional relations between CTE and component high schools. Literacy support rests with one institution or the other, with some collaboration across sites to address student needs.

---

CTE & Academic as Separate Spheres

Students manage their own outcomes and are responsible for producing success/failure in each, independent sphere.

Aspects of learning in each sphere may or may not affect the other. Little or no collaborative CTE-academic planning and/or teaching.

Missing position in data

---

Individualist Curricular/Program

RESPONSIBILITY FOR INTEGRATION AND CTE STUDENT LITERACY DEVELOPMENT
APPENDIX E

REGIONAL OCCUPATIONS: BUSINESS PLAN
CULMINATING PROJECT ASSIGNMENT
(required of ALL students, regardless of participation in Integrated English/CTE)

Start Your Own Business
Senior Project

Every new business begins with a plan. To create your business you will form a professional business plan that includes the following sections.

Cover Page
- Business name
- Business owner

Table of Contents

Executive Summary
- Objectives
- Mission Statement

Company Summary
- Start-up Costs
- Form of Ownership
- Location

Product/Services
- Description

Market Analysis
- Customers
- Strategies- logo, slogan, newspaper or yellow page ad, business card
- Trends

Strategy & Implementation Summary
- Start-up Plans

Management Summary
- Organization Chart
- Personnel Plan – with employee salaries
- Handbook

Financial Plan
- Examples of needed forms
- Funding Sources
- Projected Start-up Expenses
- Financial Forms

APA References Page
APPENDIX F

RURAL TECH: EXCERPT OF LITERACY PRACTICES - TEACHER SURVEY
(conducted by Janet Adams in 2005; not connected to this dissertation study)

EVALUATION OF CLASSROOM READING AND WRITING PRACTICES (2005)

<table>
<thead>
<tr>
<th>CTE Group</th>
<th>Date</th>
</tr>
</thead>
</table>

What types of reading do students have to do in your classroom to be successful? (textbooks, directions, articles, technical manuals, etc.) (give examples)

- Resume
- Cover letter
- Professional Portfolio
- State Health Codes/Inspections
- Final Exams – NOCTI/Prostart
- MSDS
- Textbooks
- Text outline
- Classroom Directions
- “Hands On” Activity w/Instructions
- Instruction Manuals
- Diagrams/wire diagrams
- Caliper
- Schematics
- Installation instructions
- Service Manuals
- Paint mixing procedures
- Technical Manuals
- Spec’s
- Recipes, Package Directions
- Graphs
- Safety Labels
- Measurement Devices
- Topographical maps
- News Paper Articles
- Research Publications
- Trade Journals
- Blueprints
- Production Sheets
- Direction in an article
- Workbooks/Notebooks
- Internet
- Interactive CD Rom
- Tutorials
- Interactive Tutorials
- Computer Program Directions
- Handouts
- Homework Assignments
- NYS Penal Law
- NYS Criminal Procedure Law
- Training Guide
- Forms to be filled out
- Classroom oral reading
- Project oriented directions
- Hairstyle books
- Newsworthy Ad’s
- Cosmetology developing formula
- Inventory sheets
- Invoices
- Library books
- Resource Materials
- Product data sheets
- Precision measuring
- Lesson plans
- Schedules
- Menus
- Preschool books
- Client record cards
- Mailbox
- Pleasure Reading
- Proofreading
- Poetry/short stories
- Need/Fail to bring eye glasses
- Lack critical thinking skills
- Vocabulary shortage
- Unable to break-down complex directions into small parts
- Concentration
- Unable to ID key concepts
- Diversity
- Linkage to realism
- Jumping to fun or easy sections
- Confidence issues
- Jumping back and forth w/tutorial
- Spelling
- Decoding
- Context
- Can’t read/ can’t write
- Challenged by abstract thinking
A gas-air mixture that is too lean (not enough gas) or too rich (too much gas) will not burn. If the mixture for natural gas contains 0% to 4% natural gas, it will not burn. If the mixture contains from 4% to 15% gas, it will burn. SAFETY PRECAUTION: However, if the mixture is allowed to accumulate, it will explode when ignited. If the gas in the mixture is 15% to 100%, the mixture will not burn or explode. The burning mixtures are known as the limits of flammability and are different for different gases.

The rate at which the flame travels through the gas and air mixture is known as the ignition or flame velocity and is determined by the type of gas and the air-to-gas ratio. Natural gas (CH₄) has a lower burning rate than butane or propane because it has fewer hydrogen atoms per molecule. Butane (C₃H₈) has 10 hydrogen atoms, whereas natural gas has 4. The speed is also increased in higher gas-air mixtures within the limits of flammability; therefore, the burning speed can be changed by adjusting the air flow.

Perfect combustion requires two parts oxygen to one part methane. The atmosphere consists approximately of one-fifth oxygen and four-fifths nitrogen with very small quantities of other gases. Approximately 10 ft³ of air is necessary to obtain 2 ft³ of oxygen to mix with 1 ft³ of methane. This produces 1050 Btu and approximately 11 ft³ of flue gases, Figure 31-14.

The air and gas never mix completely in the mixing tube chamber. Extra primary air is always supplied so that the methane will find enough oxygen to burn completely. This excess air is normally supplied at 50% over what would be needed if it were mixed thoroughly. This means that to burn 1 ft³ of methane, 1.5 ft³ of air is supplied. There will be 16 ft³ of flue gases to be vented from the combustion area, Figure 31-14. Additional air also will be added at the draft hood. This is discussed later.

Flue gases contain approximately 1 ft³ of oxygen (O₂), 12 ft³ of nitrogen (N₂), 1 ft³ of carbon dioxide (CO₂), and 2 ft³ of water vapor (H₂O). SAFETY PRECAUTION: It is essential that the furnace be vented properly so that these gases will all be dissipated into the atmosphere.

Cooling the flame will cause inefficient combustion. This happens when the flame strikes the sides of the combustion chamber (due to burner misalignment) and is called flare impingement. When the flame strikes the cooler metal of the chamber, the temperature of that part of the flame is lowered below the ignition temperature. This results in poor combustion and produces carbon monoxide and soot.

The percentages and quantities indicated above are for complete burning of natural gas only. These figures vary considerably when propane, butane, propane-air, or butane-air are used. Always use the manufacturer’s specifications for each model of furnace when making adjustments. SAFETY PRECAUTION: Gas flow should be turned off while taking flue-gas samples not to test the hot vent pipe.

### 31.5 GAS REGULATORS

Natural gas pressure in the supply line does not remain constant and is always at a much higher pressure than required by the manifold. The gas regulator drops the pressure to a proper level (in. WC) and maintains this constant pressure at the outlet where the gas is fed to the gas valve. Many regulators can be adjusted over a pressure range of several inches water column, Figure 31-15. The pressure is increased by turning the adjusting screw is turned clockwise; it is decreased by turning the screw is turned counterclockwise. Some regulators have limited adjustment capabilities; others have no adjustment at all. Such regulators are either fixed permanently or sealed so that an adjustment cannot be made in the field. The natural gas company should be contacted to determine the proper setting of the regulator. In most modern furnaces, the regulator is built into the gas valve, and the manifold pressure is factory adjusted at the most common pressure: 3 1/2 in. WC for natural gas.

LP gas regulators are located at the supply tank. These regulators are furnished by the gas supplier. Check.