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'Critical Thinking' and State-Mandated Testing

The Collision of State Rhetoric and Teacher Beliefs

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Abstract

Based on case studies of two school districts in New York State, the authors analyze the contradictory and hegemonic discourse of critical thinking proffered in State curriculum standards and as manifest in state mandated student assessments. Using Gramsci's (1971) notion of hegemony, the analysis illustrates that dominant groups (such as state administrators or federal policy makers) gain and maintain dominance by projecting their own way of seeing the world so that those who are subordinated by it (such as teachers) accept it as 'common sense' and 'natural.' The ways in which this hegemonic relationship is created and sustained, and its consequences, are illustrated in the way teachers make sense of fundamentally contradictory rhetoric and lived practice.



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The class which is the ruling *material* force of a society, is at the same time its ruling *intellectual* force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production ... Insofar, therefore, as they rule as a class and determine the extent and compass of the epoch, it is self-evident that they do this in its whole range, hence among other things rule also as thinkers, as producers of ideas, and regulate the production and distribution of the ideas of their age. (Marx and Engels 1970, p. 64, italics in original)

“When I look at critical thinking and I think about critical thinking, I’m thinking that the answer isn’t right there in front of them. I mean it is and it isn’t. It’s not written out specifically in front of them. They have to draw upon their knowledge and they have to either through, I mean there are quite a few different, either through inference or discovery learning or attaching all the little bits they know and summarizing it up together, but it’s not right there in black and white.” (8th grade urban math teacher)

“What we are doing in science is talking about, ok, well once we’ve gone through the process, once we’ve solved the problem, gone through the scientific process, then you have to go look back and reflect, where can I go from here? We’re not done. That’s not the way scientist think. You know scientists are never completely done. They’re always looking at other possibilities, and I think encouraging that.” (4th grade suburban teacher)

“Math is easy and science is easy but writing might be the easiest way to do critical thinking. Yesterday we had poetry where we started some Langston Hughes where first they read the poem and saw what was on the paper and had to go backwards from there. What is it that would have made him write these things? What kind of feelings and what might have caused those feelings? And they work back into the poet’s experiences from there.... I think my kids have the most fun learning when I get to say ‘exactly that’s great, who else has an answer?’ and they get to keep going ... and coming up with possibilities.” (3rd grade urban teacher)

“Not black and white, gray, I think that’s part of it. It’s coming up with the answers that aren’t necessarily black and white, with a lot of choices, with a lot of judgment that can go a couple of different ways. It raises more questions, open-ended that you could keep pursuing.” (4th grade suburban teacher)

“It’s definitely a process.” (8th grade urban science teacher)

This attempt by elementary and middle school teachers to define critical thinking didn’t occur in this sequence or manner, but it could have. Discussions with teachers about critical thinking as an educational goal as well as its presence or absence in high stakes testing reveals many perceptions and raises many questions. This analysis is part of a larger study that examined the impact of high stakes testing on teaching and learning in two school districts in upstate New

York¹. These districts vary substantially: the first, which we call Park City, is urban with a significant number of minority and poor students and below average passing rates on the State tests; the other, Orchard Hill, is suburban and is mostly upper middle class and white with above average passing rates on the State tests. The larger study included four ethnographic case studies, two in each district, and involved school and classroom observations as well as individual and group interviews with teachers, students, and parents. We became interested in focusing more specifically on critical thinking because over the course of our fieldwork we heard two seemingly contradictory story lines:

1. The state standards and tests are good because they promote higher order or critical thinking skills, which teachers feel were generally lacking in their curriculum as well as in their students, and
2. The state tests require teachers to cover too much content and preparing for the state tests means teachers reduce the emphasis on critical thinking activities.

“Higher order thinking skills” in language arts, “Document Based Questions” in social studies, “Inquiry based learning” in math, science and technology, are all promoted by the State of New York’s Education Department as justification for raising standards and implementing high stakes standardized testing in schools (see Appendix A for an outline of the NYS tests). Our purpose is to explore the ways in which teachers endorse the state tests as being “good tests” because they promote the teaching and learning of critical thinking skills, while at the same time explaining how their actual experiences with those same tests has proven to have the opposite effect. To better understand teachers’ beliefs about critical thinking and state testing, we made this the focus of group interviews with teachers (see Appendix B for the interview protocol). Two focus groups were conducted in each district for a total of 19 participants, however we also draw on our fieldwork to understand this contradiction.

A Critical Perspective

Accountability schemes currently used by state departments of education demonstrate the exertion of authority over local schools and education, perhaps created by and certainly bolstered by the federal government demands for school improvement. For this authority to be successful those at the local level must consent to that authority and faithfully conduct the mechanisms of that accountability, for example, prepare students to take the tests, administer the tests, abide by the expectations of test security, score the tests, and so on (Mathison & Ross, 2002). Gramsci’s (1971) notion of hegemony suggests that dominant groups (such as state administrators or federal policy makers) gain and maintain dominance by projecting their own way of seeing the world so that those who are subordinated by it (such as teachers) accept it as ‘common sense’ and ‘natural.’

Gramsci suggests that the ruling class gains power over subordinates by controlling ‘civil society’ or institutional structures, such as schools, that construct, control, and disperse the ideas of dominant groups. The subordinated groups thus live their subordination within everyday

¹ This analysis is based on research supported by the National Science Foundation (Grant # ESI-9911868). The findings and opinions expressed herein do not necessarily reflect the position or priorities of the sponsoring agency.

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systems of practice and in so doing strengthen and sustain it. Furthermore, hegemonic control is developed and dispersed through language. Thus the language of institutions and cultural groups is shaped by the dominant ideology of the time and in turn shapes the cultural meanings and ideas of the people within those institutional practices. Foucault (1980) argues that institutions exert so much power over the people within them because the institutional practices, the way people inhabit their roles everyday, are the manifestations of that power and the material site of people's subjugation. "Each society has its regime of truth, its 'general politics' of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true" (Foucault, 1980, p. 131).

Dominant ideas and attitudes are assimilated by subordinates within the practices of institutions they live within, and act to legitimate the existing distribution of resources and power. Hegemonic processes also act in active and coercive ways by forcing particular expectations on those who want to work within the institution. These rules create a distance between theory and practice, so when acts of resistance or deviance occur, these are seen as being acts against the specific institution's rules and norms, not against the ideology of the dominant group that remains protected (Foucault 1980).

Gramsci believed, however, that hegemonic control is an unstable form of control because people's lived experiences do not always match the belief structures that guide them. Therefore, hegemonic control must always contend with multiple sites of ideological struggle that threaten to destabilize it. This is because people are capable of critical and reflective thinking, and as such are 'philosophers' (Gramsci 1971). "Every relationship of 'hegemony' is necessarily an educational relationship.... One could say therefore that the historical personality of an individual philosopher is also given by the active relationship which exists between him and the cultural environment.... The environment reacts back on the philosopher and imposes on him a continual process of self-criticism." (Gramsci 1971, p.350). Gramsci believed that the ability to think is both a precondition for hegemony, because people think themselves into accepting the way things are even when things aren't going their way, and the means for critical analysis of the contradictions and controls in the dominant view. It is through critical and reflective thinking that they can begin to create alternative conceptions of how things ought to be.

The notion of 'critical thinking' arose in our research as a context for deconstructing how the State's rhetoric of higher standards for all students is evidence of hegemonic domination of one worldview on the masses. It is hegemonic because it is seen as a natural extension of an already existing activity in school and so teachers and administrators consent to its practice even when the evidence unfolding before them points to the enforcement of a practice that few would have agreed to.

In this paper, we examine the language, justifications and criticisms expressed by teachers as they discuss the topic of state testing and critical thinking. This analysis of teachers' talk about their experiences with teaching and testing provides an understanding of the larger institutional and cultural ideologies that are at play in the State's accountability system, and provides significant insight into the ways in which teachers are supporting this system even in their disagreements with it (Gee 1999).

The Nature of the 'Contract' Between the Teachers and the State

Today's students will face a complex world in which they will have to think clearly about what they hear, see, and read. Since writing is thinking on paper, students are being trained in using higher-order thinking skills, in other words, making critical thinking a habit of mind. (New York State Education Department)

The teachers in our study, for the most part, endorse the emphasis in the New York State standards on higher order or critical thinking skills and believe these skills are essential for all students. A 4th grade reading teacher in Park City explains how the level of the English Language Arts test drives the level of instruction: *"The nature of the test itself strives for higher order thinking skills and so therefore in our training program the emphasis has been changed from the lower level thinking skills such as recall and detail to the higher level skills. That's a benefit. Another benefit is that we focus on writing much earlier than we used to.... Again due to the nature of the test we've gone from filling in the missing word, which is a former emphasis, to understanding main idea, inference, conclusions, and predicting. And those are all higher level skills. So the result for the students is that they are getting a much higher level of instruction now than they used to."*

Teachers in both districts agree that since this is a skill they would want to teach anyway, it makes sense that it would be tested. A 5th grade teacher in Orchard Hill articulates this connection: *"We really try to gear the thinking in reading, this year in fifth grade, [we are] really getting into the more critical analysis and a little bit of metacognition—telling how you know what you know. And I think if that's incorporated into a social studies test it would just make sense."*

Furthermore, teachers think it makes sense that their classroom teaching should be guided by the State assessments students will take. An 8th grade math teacher in Park City explains this connection: *"If you didn't have a test of critical thinking with the math, if I just had basic skills then I would focus just on basic skills, but because I think the math test has a lot of critical thinking (as well as a lot of confusing wording) they need to know the skills and they need to know how to apply them and know how to think about them."*

The interconnectedness between instruction and assessment is part of the culture of teaching and is accepted by teachers as natural. Assessments give teachers feedback on their students and guide instruction. Furthermore, particular instructional goals determine the kind of assessments teachers use. It is no surprise then to see this interrelationship emphasized in the introduction of the curriculum resource guides provided by the New York State Education Department: "Assessments are simultaneously ends and beginnings; they serve both as benchmarks to ascertain what and how well students are learning and as springboards for further teaching and learning" (p. 4). This statement, however, is misleading and does not address how assessment practices can override, distort and alter teaching practices in ways that are not always beneficial to those involved. At the foundation of this accountability system is the notion that the State can and should define what is worth knowing and thinking about in schools. Herein lies an inherent contradiction: critically thinking about curriculum, teaching, and learning is to be left to those in the position to set the criteria for acceptable performance—not school administrators, teachers, parents, or students.

The process through which New York State has gained control of curriculum and instruction is not a straightforward one. For example, the state standards and tests were simultaneously espoused as reflecting a new ideology, one where all children would be provided

the same rigorous and first-rate curriculum, while also attaching high stakes consequences to enforcing one form of student assessment and curriculum evaluation. Since most teachers believe in the need for some form of state assessments because, just as has the general public, they have internalized the belief that many teachers will not teach to the higher standards without being somehow required to do so, they do not find it difficult to ‘accept’ their domination and to ‘rationalize’ the reasons for why they must comply to it.

The practices teachers engage in can strengthen their compliance to the state’s expectations, but they also provide evidence for why compliance may not be morally or pedagogically correct. Furthermore, different contexts such as the socio-economic makeup of the two districts play a part in shaping these roles, altering the priorities of the teachers within those districts. So while most of the activities teachers engage in ‘support’ the state’s testing agenda, the teachers share similar as well as different reasons for why they should consent to the state’s accountability system, as well why they question the ‘real’ intent of this system.

Voices of Consent

Curricular alignment. As a result of the state standards and tests, teachers in both districts have witnessed district-wide curricular reorganization. This has taken the form of adopting textbooks that are organized around the State standards and aligned to the format of the state tests. This has also meant an increase in district mandates to ensure that teachers teach the material in the same order and using the same activities. The rationale from district administrators and teachers is that it makes sense to align the curriculum to the tests, since state funding, ranking and performance evaluations are directly linked to results on the state tests. This change is described by a 2nd grade teacher in Park City: *“We’re all using packaged programs. We’re mandated to use them. We’re reminded to use them from the administration and we are required to be at certain places at certain times and we’re required to think about what standards they address, and the different materials we use. And I think generally everybody in our school thinks and talks about the tests more than ever.”*

Similarly in Orchard Hill an 8th grade English teacher explains: *“For English, for every novel that we read, ... writing assignments are not just off the top of our head assignments, but rather well thought out, well planned assignments that are in direct relation to the listening, writing, reading tasks of the ELA 8.”*

District administrators’ adoption of practices that support the state’s accountability system contributes to the disempowerment of teachers to make autonomous decisions within their classrooms. However, the nature and source of the curricular impositions differ. For example, teachers in Park City resent the instructional mandates imposed on them by their district administrators, yet are grateful for the textbooks, stating that any resource is better than what they had before. Teachers in Orchard Hill, on the other hand, explain that the pressure to pattern their curricula on state assessments comes from themselves, not their administrators, and are most upset by having to somehow incorporate textbooks that are now required by their district.

Thinking and writing for tests is a necessary life skill. New York State has established itself as a leader in educational policy partly because of its longstanding use of high school exit exams. To a large extent, teachers see the changes at the elementary level as a natural extension of that tradition. Furthermore, district reputations often ride on the strength of their test scores because much of the public believes them to be the primary capital to one’s college of choice. So even while all teachers believe that preparing students for state tests is part of their job, that

expectation seems magnified, as is the case with Orchard Hill, within communities with a reputation for high achievement and success.

Teachers in Orchard Hill talk about the pressure from the community and acknowledge that teaching students to take tests is an important function of school and is a reality of life. An 8th grade social studies teacher explains: *“I would be doing the kids an injustice if I didn’t familiarize them with the test and its format. It’s another item on my agenda that I always keep in mind.”*

So whether teachers agree or not with the quality of the state tests, they are doing what they perceive to be their part: making sure the students have the knowledge and skills to do well on them. A 4th grade teacher explains: *“So you tell kids this isn’t exactly the best way for you to express yourself and write, but ... it’s kind of how life is.... It’s just part of life that you have to do these kinds of things and it doesn’t mean that other times we can’t write really, really long things and have a lot of fun with it. But in this situation we’re going to do it this way.... You’ve got to learn to write for different purposes.”*

This perspective seems more prominent in Orchard Hill where students already take a number of achievement and aptitude tests for admission into selective classes or schools. To deny the students the skills to compete in a competitive world is perceived by this community as irresponsible.

Learning to take the test may develop critical thinking skills. Teachers in both districts are most critical of the way the state tests measure students’ understanding at one moment in time and in one way. As insinuated in the quote in the previous section, many teachers feel that the prescribed approach they use to teach students to get ready for the tests is not the best use of their instructional time and works against students actually developing critical thinking skills (more on this later). However, teachers in both districts also state that teaching to the tests provides the means to develop the critical thinking that they feel is lacking in their students. In other words, critical thinking is learned in the process of following the prescribed steps towards an answer. An 8th grade remedial math teacher in Park City describes what this looks like: *“The fact that when you look at a complex problem in math that they don’t realize that in many cases it’s just a series of small steps that’s going to get them to the proper answer. And I think getting them to identify that there may be different ways to take those small steps is part of that whole process.... And once they take all those small steps, suddenly the light goes on, ‘wow I just did that, wow that’s pretty cool!’”*

This idea is shared by teachers who work within multiple intelligences or learning styles frameworks. A 4th grade Orchard Hill teacher explains: *“Some kids do benefit from the style of the test. Some kids you say tell me about your favorite day with a parent or a grandparent, ohhhh, they’re not going to go anywhere. But the kids who have the structure, tell me about a day, the beginning, the way the test, some kids benefit from that. They can do that. Oh they’re asking for this. I can write that. So it does benefit some kids.”*

Teachers in both districts agree that students in general have a difficult time with the critical thinking tasks presented in the state tests. Reasons why students have difficulty passing the tests are mostly offered by Park City teachers, who may feel a need to justify their students’ low scores. One reason offered is that many urban students have limited literacy and cultural experiences, which may impact the students’ overall performance in school. A reading teacher from Park City explains: *“I definitely think the ELA is exceptional in critical thinking. And what I’m finding is obviously students’ background knowledge affects it a great deal.... If they don’t*

understand what they're reading based on the vocabulary and also their literal nature, they're not going to be able to do the critical thinking. They're not going to be able to infer."

Because the state tests are often taken for granted as being 'tests of critical thinking,' another justification for failure offered by Park City teachers is the belief that students cannot learn higher order thinking skills unless they have acquired and mastered lower level ones. A teacher explains: *"If you're going on the hierarchy of learning, Bloom, Maslow, whatever, you have to go through those lower levels to get to the higher levels and yet if there is something lost in that foundation they're not going to be able to connect the dots."*

For these teachers the steps provided to teach students how to answer complex or multi-step questions on the state tests provides the kind of scaffolding necessary for developing critical thinking skills in their students as well as helping them understand the difference between lower level thinking skills such as a 'what' or 'when' question, and higher level thinking skills such as 'how' or 'why' question.

Several teachers admitted they have doubts that all students can reach the level of higher order thinking skills as defined by the state tests. In this case, teachers use a 'common sense' belief, such as the idea that not all students can learn to think critically, to rationalize their disagreement (and their students' failure) with the other, such as the idea that all students can reach these higher standards. It is difficult to determine whether this belief is mainly associated with assumptions about students who present particular challenges to educators, such as special education students or students considered at-risk, and therefore precedes the impact of the state tests, or whether these statements are primarily expressions of frustration for their impact. Again this is an example of the struggle to resolve the inherent contradiction in the accountability system where critical thinking about what counts in teaching and learning is determined by those in power. What is interesting is the idea that certain kinds of learning outcomes, such as critical thinking, may only be achieved by some and not all. And that this may be derived from a dominant conceptualization of learning as a hierarchy of skills rather than from, for example, a holistic or situated view of learning. An example of the latter is expressed by a social worker in Orchard Hill: *"I work with a lot of kids whose thoughts aren't necessarily coherent in a lot of ways, they're very low cognitively. But I think to pose a critical question to them at a level that they can understand the question means that they're actually using just as much critical thinking at their own level as someone with a very high IQ. Because to me what critical thinking involves is open-endedness, where it's not a right and wrong, there's room for their own intuition, there's room for their own creativity."*

Voices of Dissent

If critical thinking is the intent of the tests, then why so much content? A big issue for teachers in both districts is the discrepancy between assessments that supposedly promote an emphasis on critical thinking processes yet require teachers to cover what is perceived as an impossible amount of content to prepare students. Teachers feel that developing thinking skills and requiring so much content do not benefit students. Both are important they feel, but the quantity of the content has to be reasonable so that critical thinking activities can be built into the curriculum. An 8th grade science teacher in Park City comments: *"Before state testing ... I used to take my kids outside ... to run around the track and figure out how many calories they burned, what their speed was, their acceleration and all this fun stuff. We don't have time to do that anymore.... We now have to hit every topic so we don't have time to go in depth here, expand on this subject and maybe shortchange this one a little bit.... So skimming the top and learning a lot*

of content I think in the long run really isn't helping the kids much and I think that's what the state testing has done."

If critical thinking is the goal, then why is the means to get there to keep it simple and prescribed? While many teachers do describe multiple step processes as evidence that critical thinking is encouraged, they also describe their test preparation activities as needing to 'dumb down' their instructional approaches. While this view is mostly expressed in Orchard Hill, teachers in both districts explain how providing step by step instruction to students on how to tackle the English language art's essay, a Document-Based Question or an extended response in math, while necessary, discourages what they view as critical thinking. For example, in a 4th grade math class in Orchard Hill:

The teacher is reviewing a previous year's state math test that was assigned as homework. She reads the problem aloud as she works the problem on an overhead.

Teacher: *"I'm underlining and circling because numbers in math are important. This is a multiple step problem ... What do I need to do?"*

Many students blurt out answers, but none are what the teacher is looking for.

Teacher: *"Keep it simple."*

The teacher writes "KISS" on the board and reiterates,

Teacher: *"Keep It Simple Silly. Don't overwork it. I know you could do other steps but keep it simple."*

Critical thinking as "shown work" and written explanations on the state tests has changed the nature of assessment. But while certain work and explanations gain higher scores, others do not. Teachers feel they need to sacrifice teaching students about the process of writing in order to guide them toward writing a "4" (the highest score) essay for the ELA exam. A 4th grade teacher in Orchard Hill explains: *"If [students] get too creative and look at it from a different perspective from what's being asked that's where they can get into trouble.... I've seen it when scoring tests and I saw one of my brightest girls last year take a completely different slant on the test... And I was careful to praise her, but warn her that she's got to be careful when she takes a test, that there's a certain set of skills that she needs for taking a test too."*

Although we cannot generalize about why Orchard Hill teachers are more critical of a prescribed approach than Park City teachers, the idea that a step by step approach might be viewed more favorably in Park City and not Orchard Hill raises questions about the ways in which class and race influence teachers' expectations, and how this in turn affects teachers' understanding of teaching and learning higher order thinking skills.

Are the tests really measuring critical thinking? When the practice of teaching does not make sense in light of the rhetoric of state standards, those standards become the target of scrutiny. Many teachers question whether the state tests are indeed tests of critical thinking. Again, this question is raised mostly by Orchard Hill teachers that educes a question about the way oppressive practices might not only constrict people's practices but their thinking as well. For Park City teachers one could argue that the issue of whether the tests are tests of critical thinking is not of primary importance. Just as their students cannot move beyond their basic needs to experiment with the process of thinking, the teachers in Park City find the pressure exerted by the state tests pushes them in too many directions to think too critically about the nature of the tests. Since the

majority of their students struggle on these tests, it may be more difficult for them to consider the impact or nature of the thinking that is being required of their students.

Orchard Hill teachers, on the other hand, while dutifully fulfilling the function that is expected of them and teaching to the test have concluded these tests are not in fact tests of critical thinking because their view of “critical thinking” can be penalized on the test. For these teachers this realization often occurs during the scoring of the tests where teachers need to follow strict guidelines and apply a predetermined rubric. A 4th grade Orchard Hill teacher explains: *“If I never scored them and I was new to teaching and I just read it, I would say gee this has [critical thinking], but scoring them no, because there’s no room. I mean they want to see this, this and that, and that’s it.... Even though a kid may have gone on a tangent and defended it and it may have been a great piece of writing, if there’s not an element of the assessment they want to see then the kid loses.”*

Some teachers consider that perhaps some of the multiple choice questions are inference-type questions or higher order thinking but then come to the conclusion that similar to the essay questions, the fact that the students have to pick only one possible answer contradicts the essence of what it means to think critically.

The state assessments, although intended to promote the teaching and learning of critical thinking, in practice brings about the teaching and learning of formulas for good essays (such as using the exact words from the question or providing no less than three examples for each paragraph). In addition the focus for both teachers and students on the product of their thinking takes away from the process of thinking through a problem. As one teacher comments: *“They’re taking the whole thinking out of it when they tell you exactly what to write.”*

The ‘real’ critical thinking is figuring out what the tests are asking. As the pressure from the State trickles down through district administrators who respond by tightening control over the curriculum and standardizing approaches in the classroom, opportunities for teachers to create innovative lessons have been diminished. In an ironic turn, teachers find themselves providing directions not to enhance problem solving in a particular subject matter, but to promote a certain “critical” awareness of the nature of the state tests to better prepare students with the interpretive skills necessary to perform well on them. Problem solving in this context becomes reduced to deciphering the State’s intent and making the most of the information provided. For example as this 4th grade teacher in Orchard Hill tells his class during review of a previous year’s state test: *“They are asking you – remember in the ELA on the last day when they asked you the question with the bullets? These bullets you better have- if you don’t have them you won’t get it right... don’t be a genius... be a thief. What should you title it? (Referring to a chart) Be simple. Steal it from here (referring to the question).”*

Another Orchard Hill teacher explains: *“Sometimes they penalize the brighter child if it’s a poorly written question. Someone who doesn’t have as much background knowledge and it’s made too ambiguous, and there’s always that fine line when you’re designing a question, you have to have a couple of good choices and you don’t want to be tricky. I’ve seen some of those questions and I was telling the kids, that’s a lousy question. And I’ll tell them why I think it’s a lousy question and I’ll model, and I’ll talk it through with them.”*

Thinking Critically About Critical Thinking

The teachers in this study do not speak with one voice. Their voices are made more complicated because critical thinking is talked about as if it is a clearly defined concept. In fact,

the lack of an agreed upon definition of critical thinking may be one reason the same teacher can make a statement such as “the tests emphasize critical thinking skills” while also stating “a student does not need any critical thinking skills to do well on the state tests.” Moreover, teachers may agree on a definition of critical thinking but disagree on how it should be taught and assessed, or they may agree on how it is taught but disagree on what skills are needed and who can learn it. Furthermore, teachers are left with the task of having to teach critical thinking skills without having any input or control over its definition or its role in assessing teaching and learning.

Despite their differences, however, we find that teachers share a general conception of critical thinking and overwhelmingly describe it as a process that is student-directed, exploratory, involves multiple perspectives, and should lead to further inquiry. For many teachers, New York State education’s vision of higher standards for all with its emphasis on inquiry is a move in the right direction. “*I think it is a skill they need to do well in life,*” says an 8th grade science teacher in Park City. The state’s rhetoric of inquiry-oriented teaching and higher standards for all students is an emancipatory vision that appears to emphasize creativity, integration and innovation in both the teaching and learning of subjects. The practice of testing, however, dulls this vision. It is at this intersection of rhetoric and practice that we find teachers struggling to make sense of what is really going on with the standards and testing movement. It is also at this intersection that we witness an area of ideological struggle where teachers are openly questioning the system that controls them (what is to be known and how it is to be known) even while in practice continuing to support it.

Views Of Critical Thinking

Even theorists don’t agree on what it means to be critical. Pennycook (2001) identifies three broad perspectives on critical thinking: critical thinking, emancipation modernism, and problematizing practice. The first, critical thinking is a form of “skilled critical questioning” which “can be broken down into a set of thinking skills, a set of rules for thinking that can be taught to students” (p. 4). This form of critical thinking is characterized by “critical distance,” and an “objectivist” view of knowledge and evaluation (p. 4). Emancipation modernism, the second perspective, “may accept the possibility that critical distance and objectivity are important and achievable but argues that the most significant aspect of critical work is an engagement with social critique” (p. 4). This involves looking at the processes and consequences of issues through multiple lenses. Finally, the third position rejects “any possibility of critical distance or objectivity” (p. 4) and “insists on the notion of *critical* as always engaging with questions of power and inequality” (p. 4).

In our work with teachers we have identified two different world views expressed through their descriptions of critical thinking. (See Figure 1 for an overview of these perspectives.) The first, similar to Pennycook’s emancipation modernism view, which we call here a *critical-emancipation orientation*, is manifested in the way teachers talk about critical thinking as a continuous process that supports a language of possibility and a pluralistic view of learning. This view includes opportunities to make choices and mistakes, supports the autonomy and judgment of the learner, and reduces teacher control and authority; it is a political position that places control in the hands of the people and believes in their critical capacity. An example of this view is provided by an elementary teacher in Orchard Hill: “*It needs to be the kinds of questions that you ask that are really open-ended and do not have a right or wrong answer where they really have to look at the gray ... where you could have one group and set them up one way and they could come up with one scenario and another group another way, and both of them are right.*”

The second viewpoint, which Pennycook terms critical thinking and we call an *objective-rules orientation* is evident when teachers talk as if the steps presented by the tests are essential steps to critical thinking. This perspective believes that critical thinking can be modeled, controlled and thus objectively evaluated. It involves process and product and follows particular rules and as such does not differ from other product-oriented objectives of learning. It does not believe in the capacity of individuals to come up with their own answers. An example of this view is provided by a middle school remedial reading teacher in Park City: “*Today we did a writing project where we were writing about a startling thing that happened in my life, something that caused them pain of some type, either physical or emotional. And we set it up where the ‘who’ and the ‘what’ was going to be the intro, so ‘where’ and the ‘when’ was going to be the body and the ‘why’ was going to be part of the conclusion. So they had everything all lined up for them and knew exactly what to write where and they just had to embellish.*”

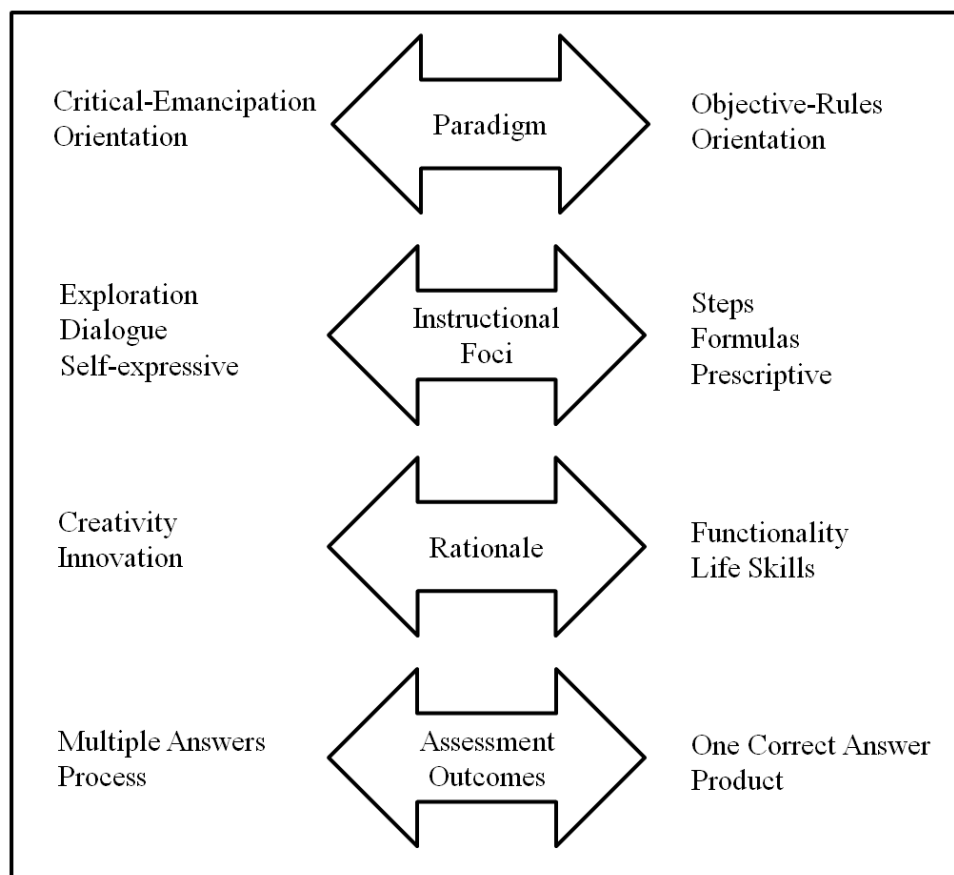


Figure 1. Two views of critical thinking.

The issue is not only about which viewpoint is best for students or teachers to teach, but how only one view has been endorsed by the state and is now required of all teachers and students. If we were to consider only the rhetoric used by state policy makers and bureaucrats, the first viewpoint seems to be the one endorsed. For example, the state’s Mathematics, Science and Technology Resource Guide sounds child-centered:

Standard One [i.e. Inquiry Approaches] sets the tone of all the mathematics, science, and technology standards by focusing on inquiry. It is based on the belief that such an approach is essential in enabling all children to learn. Every child’s

question about a phenomenon can lead to learning. Any approach a child takes in working out a problem is worth delving into as a path toward understanding. (New York State Education Department)

This rhetoric is repeated throughout state documents and is used to organize the learning standards.

Hegemony In Action

Everything in the state's practices, policies, and actions, however, points to the second viewpoint as being the one endorsed by the state and required of teachers and students. Furthermore, these practices and policies do not simply represent an educational vision but act as a set of strategies meant to disguise state power and control the work of teachers, and in so doing, secure their consent. This is evident in the way: (1) the tests are required of all students; (2) teaching to the tests consists of specific steps and rules; (3) scoring is meant to align teachers' views to a common standard; and (4) public reporting of scores keeps teachers and administrators in line.

The tests are required of all students. One of the largest changes imposed on schools and districts in New York's educational plan is the mandate that all children (including vocational and special education students as well as non-native English speakers) must take the New York State standardized tests including a series of high school exit exams. While most educators agree with the premise of closing the educational gap and raising standards for children who have traditionally been 'left behind,' this ideological rhetoric of emancipation and success for all children simultaneously depletes any decision-making from teachers, administrators, parents and students as to a student's readiness to do so or the appropriateness of a particular test for a particular student. When teachers or parents criticize these mandates, they are accused of not being able to meet their professional responsibility or worse of not wanting to raise standards for all students. This process of using the ideology to discredit teachers and parents who try to 'think critically' about the appropriateness of a one-size fits all process ends up reinforcing the state's rhetoric while disguising its controlling practices. By adopting a consumer-friendly rhetoric of higher-order thinking skills and inquiry-oriented teaching, the state succeeds in not only gaining public consensus for their accountability system but imposing their own meaning and view of critical thinking (which is contradictory to this rhetoric) in the practice of enforcing it.

Teaching to the tests consists of specific steps and rules. When forms of assessment are taken over by the state they control the curriculum as well as teachers' pedagogical practices. This backdoor into teachers' work disguises the direct power that is being imposed on teachers. This is evident in the way teachers criticize the content of their curriculum while still endorsing the standards and tests as being reflective of what students should know and be able to do. It is primarily through their practical experience with scoring the tests and teaching to the tests that this agenda is unveiled. Since teachers believe that assessments should be closely linked to instruction, the kind of instruction that is necessary to meet the needs of the tests provides them with the means to criticize the tests. So even while not being critical of being asked to prepare students for a common form of assessment, teachers are becoming very critical of the way the tests are said to be something that in reality they are not. In their view, if assessment practices do not support the inquiry-oriented instruction broadcast by the state, then the state did not intend for that kind of instruction to occur.

There are many reasons why teachers feel compelled to do as they are told and this speaks to how institutions are structured to maintain dominance over the practices people inhabit. While we do not have space to discuss the way teachers have been reduced to the status of workers in American educational institutions, it is interesting to consider the intent of creating tests that force teachers to cover an impossible curriculum. Certainly state education policy makers are aware of the time needed to cover a meaningful curriculum as well as engage in a variety of critical thinking activities. One might reasonably speculate that impossible state demands are intentional and are meant to prevent a critical-emancipatory orientation from finding root.

Scoring is meant to align teachers' views to a common standard. *Teachers* are also required to score the state tests and this is another process that is dictated by the state education department. All scorers must attend some form of training. The goal is to get teachers familiar with the scoring rubric that they are required to use and to make sure the tests are scored under similar conditions and everyone is aligned to the rubric. For example at an ELA regional scoring training, one of the facilitators explains: *"People tend to have preconceived ideas of what to expect and how to interpret the rubric. The hardest thing is to break people's own interpretation of the rubric and so doing this in a group usually leads people to even out their interpretations and find a common ground."* Evidence of this process can be seen in how teachers are praised at the end of their training sessions by the facilitator: *"Five years ago there were so many questions about every aspect of the scoring and now 5 years later there is a lot more acceptance of it whether or not we agree with all of it."*

Acceptance and consensus are the goals of these sessions and teachers take this process seriously. As one teacher is overheard whispering to another: *"I would give this a two but I know the guide expects it to be a one."* There seems to be a clear understanding among teachers that the scoring process is about consistency and their job is to learn to interpret the scoring guide, interpret the students' responses, and score accordingly.

Public reporting of scores keeps teachers and administrators in line. Teachers are critical of the lock-step approach put forth by the state and find that approach counter-intuitive to student-centered and inquiry-based teaching. Assessment should be about measuring progress and should allow teachers and students to assess areas of strengths and weaknesses. But the teachers feel they are constantly getting another message altogether, one they must then interpret to their students. An 8th grade English teacher from Park City comments: *"We think we know what the state's looking for so we teach our students to follow this rubric.... And for what? You know they claim they're supposed to be back in a month and we're supposed to use them... We get them at the end of June. At that point ... it means nothing to these kids that have worked so hard all year, September to January, ELA, ELA, ELA. We're a failing school. We're in the newspaper. That's all they hear. This year's bunch took it to heart. They, going into the test, thought they were failures. And it took me so long to just change that way of thinking, just to get them, listen I am so proud of you.... It's just awful."*

Hegemony functions by controlling the discourse and the practices through which that discourse circulates. When performance is measured through concrete, standardized means such as tests, but results are discussed as being above or below standard, it creates a division between theory and practice. Standards, and the tests which are supposed to represent them, are deemed good because they represent the high goals that teachers have for students, but the authority imposed by the state, the sanctions that follow success or failure do not represent the way that teachers feel higher standards should be reached. This separation of theory and practice obscures the nature of the standards and tests as being intrinsically part of this process of control.

Teachers are easy targets for the state to victimize. The conservative restoration has effectively built a case against 'progressive' or 'student-centered' teaching practices in such a way that teachers are seen to be responsible for the supposed lower standards that forced a state takeover. In this process, the dominant ideology, which in this case is a neo-liberal one, succeeds both in laying the blame upon those they wish to control while at the same time effectively silencing them. The strength of hegemony in this case relies in part on the state's ability to convince the public that teachers' complaints are about not wanting to do the hard work of their job or what's right for kids. The reporting of state scores provides a false kind of transparency where the public is thought to be kept informed, while actually having their thoughts and opinions of school success more directly influenced and controlled by the state (Foucault 1980). One can surmise that the test scores, especially those that fall under the required standard of achievement achieve the dual purpose then of further de-legitimizing teachers' concerns while also providing convincing evidence that state control is necessary.

Conclusion

In a high stakes testing situation teachers respond by teaching to the test and by conforming to the expectations of the state authority. The pressure to do this is passed down from one level of authority to the next. This has meant an increase in certain sorts of teaching activities and learning opportunities. However, these changes need to be carefully examined. This research demonstrates that while teachers say they are teaching critical thinking skills because they are demanded by the state tests, they are finding the means to do so constrained in every way possible by state practices and policies. The result of this contradiction is that it weakens teachers' belief in the state's intent and makes more visible the other means, such as the use of public reporting of scores and their associated sanctions, to enforce control. We hope this discussion contributes to a more sophisticated understanding of the intended and unintended consequences of high stakes testing on developing critical thinking among teachers and students, but that the analysis we offer extends beyond just the idea of critical thinking. It supports the assertion that accountability, as practiced in New York State is a form of hegemony, and has the intent not of working collaboratively with those who teach children but of controlling the means and outcomes of the entire educational system.

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Appendix A²

Summary of New York State Tests Given in 4th, 5th and 8th Grades

4th	<p>ELA</p> <ul style="list-style-type: none"> ❖ Session 1: Reading selections- 28 multiple choice questions ❖ Session 2: Listening selection, short and extended response questions, independent writing prompt ❖ Session 3: Reading selections, short and extended response questions <p>Math</p> <ul style="list-style-type: none"> ❖ Session 1: 30 Multiple choice questions ❖ Session 2: 9 Short and extended response questions ❖ Session 3: 9 Short and extended response questions <p>Science</p> <ul style="list-style-type: none"> ❖ Part 1: (Written) Multiple choice questions (35-40%), constructed response(15-20%), and extended response(15-20%) ❖ Part 2: (Performance) Open-ended questions (25%)
5th	<p>Social Studies</p> <ul style="list-style-type: none"> ❖ Book 1: 35 multiple choice, several short answer and constructed response ❖ Book 2: Document-based question
8th	<p>ELA</p> <ul style="list-style-type: none"> ❖ Session 1, Part 1: Reading selections, 25 multiple choice questions ❖ Session 1, Part 2: Listening selection, short and extended written responses ❖ Session 2: Reading selections, short and extended written responses and an independent writing prompt <p>Math</p> <ul style="list-style-type: none"> ❖ Session 1: 27 multiple choice questions ❖ Session 1, Part 2: 6 Short and extended response questions ❖ Session 2: 12 Extended response questions <p>Science</p> <ul style="list-style-type: none"> ❖ Part 1: (Written) Multiple choice questions, constructed response, and extended response ❖ Part 2: (Performance) Open-ended questions <p>Social Studies</p> <ul style="list-style-type: none"> ❖ Book 1: 45 multiple choice, several short answer and constructed response ❖ Book 2: Document-based question

² This description of the state tests was accurate at the time of our study, however, NYS now tests all 3rd – 8th graders in language arts and mathematics, 4th and 8th graders in science, and there is no social studies test.

Appendix B

Critical Thinking Interview Protocol

1. Can you provide an example of an activity that you do in your classroom to encourage critical thinking?
2. What components do you think need to be present for an activity or process to be considered a critical thinking or higher order thinking activity?
3. When you think of the state tests, do you think of them as tests of critical thinking? In what ways? Can you provide an example of what you mean?
4. In what ways do tests preparation activities encourage critical thinking? In what ways do they discourage critical thinking? Can you provide an example of what you mean?
5. Why do you think teachers can be overheard telling students “not to think outside the box,” or “not to take risks,” “just follow the directions,” when preparing students for the state tests?
6. In what ways can a student’s critical thinking ability interfere with him or her doing well on the state tests? Can you provide an example of this?
7. What do you think of the fact that the Multiple Choice questions on the 4th grade ELA are worth 67% of the entire test points? The social studies and math tests Multiple Choice questions are worth 50% and 43% respectively.
8. *Prompt for a Written Response:*
How do you feel the state testing rhetoric has shaped your thinking about critical thinking? Are there any contradictions between teaching you would do for the tests and teaching for critical thinking? Explain what you mean?

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