Investigating Power and Agency in Singular Diversity-Requirement Education Courses
Moving Beyond Content Analysis to Engage with Critical Praxis Analysis

Phillip Andrew Boda
University of California, Berkeley

Abstract
Given recent pushes toward homogenous teacher education, teacher educator pedagogy necessitates modeled critical practice. The research presented here provides an analysis to ground the call for a move beyond teacher education pedagogy focused on the dissemination of knowledge about critical issues in classrooms. Utilizing two methodological traditions – namely, critical discourse analysis and phenomenography – this paper reports on the discursive moments enacted in a graduate course that sought to foster critical understandings of issues in urban science education, intending to lead to critical practices employed by this population of teacher candidates and doctoral students. Findings support that not only was there a preponderance of the dissemination model of teaching and learning, but also that the students within this course, even when working in groups, were unable to generate critical unit plans for prospectus science lessons in K-12 classrooms. Implications for this study are discussed in relation to the literature on critical teacher education.
**Introduction**

In 1986, Henry Giroux and Peter McLaren mapped out a means to an end for more democratic, and therein more critical, schooling that was centered on the way we engage our teacher-candidates within the programs that serve their learning. Thirty years later, Christopher Emdin (2016) provides us with a similar narrative for teacher education that is grounded in the fundamental tenets sought by Giroux and McLaren: Power, language, culture, and history. Let us propose that these concepts are the building blocks through which teachers make sense of the world, and therein also the words that have driven the consciousness from which they draw to make sense of it locally and globally (Bakhtin, 2010; Freire, 2000).

Given that pre-service teachers’ decisions as directly tied to issues of power and culture, teacher educators are important now more than ever; in other words, because pre-service teachers live in, and therein embody, societal structures more broadly, the hierarchal nature of this dynamic becomes played out within institutions that serve society, as well (i.e., specifically in our schools but also among other social settings). Therefore, if we seek more critical praxis both in our teacher education programs, as well as within our teacher-candidates’ future decisions in their classrooms, we must embody and study our own practices as a dialectic transformed into praxis that emphasizes this criticality – a process of ideology, action, and reflection (Arnold, Edwards, Hooley, & Williams, 2012). In doing so, the study of teacher education requires new modes of inquiry for such a call to be actualized.

Given this recognition, and in light of the recent push toward more homogenous notions of teacher education based on the privatization and commodification of the field across the globe (Connell, 2013; Hales & Clarke, 2016; Zeichner, 2014), our work as teacher educators cannot be merely considered through notions of curriculum and the modeling of content-based practice in the face of present-day neoliberal notions of market-value pedagogy (Bullough, 2016). To emphasize that our goals as critical teacher educators parallel content acquisition and pedagogical content knowledge goals within dissemination models of teacher education, then, places our praxis akin to these goals rather than emphasizing a challenge to the basis of how knowledge is constructed, who has the agency to contribute to that knowledge base, and for whom particular knowledge is made for more broadly. Instead, let us take a turn toward an analysis of our actions in higher education classrooms as sites of resistance, and places where notions of power, language, culture, and history are constituted with our students by the actions we (do or do not) take up as critical pedagogues.

**Purpose**

I make the claim that for teacher educators to foster criticality in our teacher-candidates, we must go beyond the notion that merely exposing new teacher-candidates to the invisible and normative narratives that have contributed to inequity in schools; we must not assume that this didactic pedagogical structure will serendipitously influence these future teachers’ pedagogical decisions, even when presented alongside a modeled process of content-based pedagogy to infuse these issues in disciplinary pedagogy. Indeed, this is a call bringing us full-circle to a re-visitation by Peter McLaren in our present day educational climate (2016) where he emphasizes the much-needed turn in education toward more critical praxis:
It [critical pedagogy] is defined as the working out of a systematic dialectic of pedagogy that is organized around a philosophy of praxis. Here, the dialectic involves a process of mutual understanding and recognition, a movement between an outlook on reality and a method of analysis … critical pedagogy is about the hard work of building community alliances, of challenging school policy, of providing teachers with alternative and oppositional teaching materials. It has little to do with awakening the “revolutionary soul” of students—this is merely a re-fetishization of the individual and the singular under the banner of the collective and serves only to bolster the untruth fostered by capitalist social relations and postpone the answer to the question: Is revolution possible today? It falls into the same kind of condition that critical pedagogy had been originally formulated to combat. It diverts us from the following challenge: Can we organize our social, cultural and economic life differently so as to transcend the exploitation that capital affords us? (p. 27, 29)

To this end, the purpose of this paper is to make visible the notion that critical narratives espoused by professors are in need of study for their structural dialectic just as much as traditional ones are interrogated and exposed for their limitations and dialogic shortcomings (i.e., traditional macro-narratives of students and schooling as myopic and stereotypical; Lam, 2015). In doing so, we as teacher educators find ourselves situated in the process of analyzing the spaces where we produce these counter-narratives, as well as understanding how the actions in such spaces between professor and student develop teacher-candidates’ capacities to create spaces in their future classes that (may or may not) embody this critical praxis.

Drawing from socio-linguistics, this research uses critical discourse analysis as a method to study how social contexts, such as higher education courses, can create a space for the goal of taking up “[a] critical sociological approach to discourse … [as] an absolute necessity for the study of education in postmodern conditions” (Luke, 1995, p. 41, as cited in Rogers et al., 2016). In this way, this paper studies interactions between professor and students tied to issues of structure and agency that manifest in these contexts, rather than continuing to solely look at the content of the arguments themselves as being ‘critical’ and, therein, relinquishing the structure of such a dialectic to be unquestioned and seen as unimportant to the creation of critical praxis.

This study also incorporates phenomenography as a methodology to add a layer of analysis of the discourse practices used within this higher education course. In particular, this integration of phenomenography was used to analyze a specific phenomena (peer and professor interaction structures) within a teacher education context where pre-service teachers are asked to make sense of the world in relation to the disciplinary specific goals. This, then, compliments critical discourse analyses of systemic sets of conceptual understandings that exist within this interactive context and adds onto that analysis a component of interaction. Thus, this paper argues for a more explicit turn to both our engagement with teacher-candidates about multicultural issues, as well as the notions of power, language, culture, and history that manifest in perceptions of appropriate pedagogies designed specifically for urban contexts from the discursive moments that are produced within university teacher education courses.
As a recent review of critical discourse analysis (CDA) research in education points out, three areas of interest sit at the crux of all CDA research: language, power, and ideology (Rogers et al., 2016), with three methodological foci also attended to within this CDA review that relate specifically to how I use CDA connected with its suggested type of phenomenographic analysis: Reflexivity (researcher positionality), Deconstruction and Reconstruction (issues of power/agency), and Social Action (purposing the research). Given that CDA “is critical in that it focuses on how power is maintained through accepted social practices that implicitly tend to favor the interests of those currently in power and hinder those of their competitors” (Hanrahan, 2005, p.5, emphasis in original), the notion that this type of analysis is pertinent in higher education, especially in teacher education, should be considered more thoroughly than it has.

In other words, due to teacher education becoming fiscally and philosophically connected to standardized notions of success, an analysis of how professors may enforce hierarchal structures in their classroom while touting more distributive and rhizomatic subjectivities necessitates analysis and exposure for us to move forward in embodying critical praxis in teacher education. Moreover, bringing attention to the idea that these discursive moments have validity for their study, especially tied to products of such courses, should be evident given the current political climate that seeks to remove politics for any discussion about education, even all the while representing a political ‘call to arms’ in its request (Boda, 2017). To elaborate, given that when teachers step into the classroom they will be forced to navigate the politicized climate of classrooms as microcosms of larger societal trends (such as polarized discussions on Black Lives Matter, transgender identity, and evolution) their choices and subsequent actions will align or rift with society’s influences, thereby denoting any teacher as political agent. This, then, mirrors the reality of teacher educators being charged with similar goals that could enforce apolitical standpoints in the face of a highly charged political climate, rather than acting in ways that expose the nature of the hierarchies that their teachers will emphasize in their class structures.

Accordingly, while the majority of the studies in CDA from the most recent review of the literature have been centered in higher education contexts, the macro-analyses of interactions within CDA studies as a whole have been around 36%, which also include interview-based analyses (Rogers et al., 2016). This means that only 1/3 of the studies done using CDA actively address interaction between agents during the production of specific discourses deemed viable for deconstruction and reconstruction as valuable (i.e., viable for critical analysis), and that this type of analysis is often being studied within interviews analyses rather than dialogic interactions that occur in higher education classrooms. However, no such CDA analysis has incorporated phenomenography as a methodology to map out interactional patterns between professor and students systematically based on the tenets of CDA research. Given the nature of these previous analyses and their limitations, I now explicitly laying out how CDA was used.

**Context and Researcher Positionality**

The course examined in this research was titled *Urban and Multicultural Science Education* and contained 25 Master’s and Doctoral level science education students. It was, as in many higher education contexts (Casey & Childs, 2017; Hikido & Murray, 2016), the sole ‘diversity requirement’ for all students within the science education program at this large, urban university in the American northeast. The course content was focused on introducing graduate
students with the theoretical underpinnings of multiculturalism and its importance for science education for urban contexts. Students were asked to read 1-2 journal articles a week, and then asked in class to engage with these readings in both abstract and pragmatic ways.

For example, there was often a piece of mass media to introduce a topic, which was followed by a tangential discussion in relation to that topic and the readings or responding to the students’ reactions to that piece of media. In this way, students were asked to theorize (analyze hypotheticals; think abstractly) and provide solutions to elicit their interpretations (think pragmatically). They were also asked to produce autobiographical essays throughout the course and final group-generated unit plans, both of which were intended to lead students to first deconstruct their own narratives of Self and Other (through auto-biographical excavation; analyzing hypotheses of different positionalities and their effect on cognition) and then reconstructing pragmatic ways to ameliorate the biases that are emphasized in standardized notions of students and schooling (through the creation of co-generated unit plans).

I was the graduate student teaching assistant (TA) in this course; my role was to provide instructional support via questions during class, lead class sessions when the professor on record was not able to attend, but I was not charged with grading or evaluation of any student. I state this positionality to make evident that I don’t separate myself from this research; in fact, I exist multiple times in the audio analyzed for this project. However, what I want to make clear is that this type of analysis requires a sense of inclusion of one’s self within the work for critical analysis to occur. As stated above, CDA is critical and thus to try and separate my existence from the social contexts would be antithetical from the purpose of understanding the social context itself as being constitutive of discursive moments, and therein also power, language, culture, and history. As a participant in the research presented here, I must also make clear my intentions of such research; they include, but are not limited to, developing an understanding of the types of interactions within the course, providing a more nuanced explication of these interactions through an analysis that is sensitive to ways of responding by those in power, and learning about the nature of such courses as they apply to aspects of critical pedagogy in action. Through this research, I sought to both learn and teach — to emphasize a dialectics of positionality embodying criticality through action and inquiry.

Issues of Power and Purposing the Research

Given these intentions, CDA aligned well with the goals for such research in that I sought out two levels of inquiry that seek to bridge micro-/meso-/and macro-analyses that are of a CDA tradition. More specifically, I sought to inquire about the following three analysis levels that align with CDA, listed below: the type of discussion patterns that emerged within the course (meso-level analysis as related to member-groups); describe in what ways this discourse aligned with specific forms of agency for both student and professor (macro-level analysis also related to member-group dynamics); and expose how the students were thinking about critical issues in terms of students and schooling (micro-level analysis as related to personal and social cognition that is embedded within the previous two analytic levels):

Members-Groups : Language users engage in discourse as members of (several) social groups, organizations or institutions; and conversely, groups thus may act 'by' their members …
Personal and Social Cognition: Language users as social actors have both personal and social cognition: personal memories, knowledge and opinions, as well as those shared with members of the group or culture as a whole. Both types of cognition influence interaction and discourse of individual members, whereas shared 'social representations' govern the collective actions of a group. Thus, cognition is also the crucial interface (or with a biological metaphor: the missing link) between the personal and the social, and hence between individual discourse and social structure. (van Dijk, 2001, p.354)

It is through these two framings of CDA where we find this research’s analytic lens. By observing what type of discursive moments were produced by the member-groups of this study (i.e., between professor-student, student-student, student-professor), and the discursive uses within these moments derived from personal and social cognition that was set ‘into play’ within these contexts (i.e., if and how agency was developed through the explicit valuing of who’s authoring ideas), this research ‘mapped out’ a space where multiple categories of the social structures were enacted in this classroom context and intersected with particular descriptions of discourse structures. In other words, the categories are descriptions of how the professor developed particular discourse patterns within the class between the member-groups and the descriptions are explanations of what emerged from that pattern – i.e., what type of agency was or wasn’t developed/sustained through each particular discourse pattern in terms of valuing the authorship of a concept being discussed.

I identify the intersections of these two coding structures as ‘discursive moments’ – intersections of specific methods of fostering discussion (social structures) and specific analyses of power and agency exerted therein (discourse structures). These moments were then helpful in identifying the nuances of power that existed among the social actors’ relationships in the course, helpful in revealing the discursive practices emphasized by those within the class, and useful in describing this course based on the nature of the discursive moments emphasized. To this end, phenomenography provided the method of analysis for these emergent phenomena that were observed, which fostered a more systematic way of categorization of the data through looking at how these three different levels (macro-/meso-/micro-) interact to corroborate claims.

On Phenomenography

Phenomenography was conceived through an assumption that cognitive processes are a function of social experience, and it emphasizes a method to systematize these observations of perceived lived reality. Given phenomenography is a research method grounded in the act of “focussing [sic] on conceptions of specific aspects of reality, i.e. on apprehended (perceived, conceptualized or ‘lived’) contents of thought or experience” (Marton, 1981, p. 189), this research project emphasized that conceptualization functions as a result of the interactions between discourse production and the constitutive elements of power, language, culture, and history that have been used to produce said discourse in particular contexts.

For the critical teacher education researcher, this means that to study the conceptualization process among our students and ourselves as we foster specific discursive structures in university contexts, we need to study the discursive moments that produce such conceptualizations in order to better our practice – of our ability to respond to the ideology, action, and the reflective process of educating for criticality in teacher-candidates. Moreover, as
a researcher that seeks to ‘map out’ this phenomenographic space in relation to power and agency, I utilized phenomenography to define the methods employed within this study as being part and parcel to understanding and inquiring about praxis as something enacted, and subsequent able to be observed, within higher education contexts. This illuminated the nature of courses such as this to be akin to similar analyses done when thinking about how discourse is produced in social interaction through the type of discussions being valued within higher education, and more importantly in courses whose arguments are couched in deconstructing oppression and reconstructing narratives couched in social justice and equity.

Researchers developed phenomenography for higher education research (Tight, 2016); thus, the purposing of this particular research method aligns well with the intentions of this paper – to emphasize social justice as ideology, action, and reflection. Moreover, the fundamental base of phenomenographic traditions is one of designing learning environments that attend to the ways students make sense of the ideas in question to better cater to their learning needs and meet particular goals of conceptualization (Åkerlind, McKenzie, & Lupton, 2014). This frame of reference aligns well with CDA in that phenomenography seeks out two-dimensional analyses of social contexts where specific discourses are borne and bred. This is where my research draws from phenomenography by inquiring about the actual discursive moments that took place between participant (teacher-candidate) and authorities of knowledge, focusing on a transformative method to analyze teacher education contexts where discursive patterns are enacted and where agency plays a role in developing personal cognition.

As the evolution of phenomenography has led to focusing on the multiple experiences that are directly related to the phenomenon of inquiry (Marton & Booth, 1997), defining the phenomenon of inquiry as discursive moments that produce notions of power, language, culture, and history changes the nature of the data collected to focus on the ways these moments are enacted within the context of study. This then departs from using interviews as the primary source of phenomenographic research in that the original formulation of this methodology relied entirely on interviews as ways to observe interacting variables for analysis (Åkerlind, 2012), which is also exhibited in recent analyses employing phenomenography (Holmqvist, 2016).

This, additionally, requires a fundamental change in the analytic process that is used to produce the ‘outcome space’ where variations in the phenomenon are exhibited due to the fact that interviews are often designed specifically to elicit particular concepts of inquiry, whereas my study focused on the emergences of these moments for analysis, thus employing an inductive analysis procedure rather than the primarily deductive analyses employed in a phenomenographic methodology. This is where CDA provides the analytic lens from which a critical teacher education researcher can draw from to understand the discursive moments that occur in higher education contexts, and their relationship to teacher-candidates learning as being constituted in the material products that are collected in such courses.

In other words, by studying how professors facilitate discussions in their courses (i.e., social structures) and studying where these discussion patterns overlap with who is positioned as author of the ideas produced within these contexts (i.e., discourse structures), we can study systematically how ideas develop and outcomes related to them. From this analysis we can take up the goal of changing our practices in higher education contexts to embody a position as critical teacher educator wherein our practices exhibit the ‘responsibility of response-ability and address-ability’ (Oliver, 2001). This emphasizes the notion of validating the authorship of ideas and supporting the generation of knowledge in contexts where traditional hierarchal roles and
structures (i.e., professor and student dynamics in higher education) can be broken down to embody new forms of discussion that distribute agency and power across all parties involved.

**Research Design**

In working on this project, I found three requirements to methodologize this type of inquiry: (1) Entrenched presence (e.g., field notes analysis *in situ*; Hammersley & Atkinson, 2007), (2) Open Audio Coding (Wainwright & Russell, 2010), and (3) Intuitive confirmation (i.e., rejecting positivism and adopting an interpretative lens as a purposeful decision for doing qualitative work; Hammersley & Atkinson, 2007). The first comes into play within the data collection procedure while the second and third emerge within the data analysis procedure. All three are deeply centered on the ways that one makes sense of the social context in which the research is grounded, and therefore this type of research makes no claim to objectivity. Rather, the notion of objectivity in such a design makes less sense in that it attends to the importance of a lack of interpretation within research when the purpose of such a research design is to be critical, thus requiring analysis of the first order kind – of a literal and personal interpretation. It is with this in mind that I turn now to an explanation of each requirement below.

**Data Collection**

As the focus on this research is on how members in a group interact within a social context, the need to collect data that would capture such observations was paramount. For this research, audio was recorded from over 1200 minutes of a graduate course on multicultural issues in urban science education. The author also collected field notes on the discursive moments within the course during these recorded times to increase dependability of the interpretations that would occur later during data analysis. These field notes focused on the interpretation of each discursive moment with a time stamp to record when each possible moment would start and end. An example of these field notes is presented below in relation to the Reiteration Level 1 coding (explained below in the Findings section, Table 1):

1:15 – Professor (P) presents media representation of race via YouTube video
1:18 – P asks multiple questions in a row to Students (Ss) without waiting for response
1:19 - One student (S) answers question
1:19 – P responds to S by confirming students’ thoughts out loud (“YES! Brilliant!”) and then rephrasing the statements in his own words (“When we’re thinking about…”)
1:20 – P proceeds to explain why the student’s claim is important (no reference to student as the original author of claim or validating where the idea came from)
1:20 – P transitions by moving to another place in the room.

This capturing of discursive moments as a researcher was crucial for understanding the audio that was analyzed later on because when I went back to listen to each of the recorded audio sessions (months later) there was a need to triangulate the fresh audio with the interpretations I was making during the process of data collection. In other words, just as critical researchers often re-narrate the social milieu they are inquiring about into descriptive codes that expose issues of power and agency in the classroom, I needed to corroborate the interpretations I was making *after* I stepped away from the context of inquiry with those interpretations I made *during* the actual performance of power and agency as it played out in real time.
A final group-generated assignment where students constructed ten separate unit plans containing 2-3 lessons each that focused on practical implementations of the theorizations emphasized within the course were then used as artifacts to measure the effect of the discursive moments produced in the course, coded through a modified focus rubric (Ward & McCotter, 2004). This scale aligned with the purposes of this research in that it differentiated between the purposes of lessons being focused on four different categorizations: Routine, Technical, Dialogic, and Transformative. The former two would be assigned to lessons that followed a teacher-centered pedagogy while the latter two would be assigned to lessons that followed a student-centered pedagogy. These four codings are also directional: Routine is the least critical in that it focuses on how the classroom affects the teacher and classroom management structures; Transformative is the most critical in that it focuses on how the classroom can be structured in ways to facilitate students being involved with ethical, moral, cultural, and historical concerns in relation to the topic of inquiry for that lesson (Ward & McCotter, 2004).

This data collection immersion – what I call entrenched presence – has been advocated elsewhere for the analysis of a group of people sharing ideas and acting on such ideas in ways where power, language, culture, and history are performed (Cohen, Manion, & Morrison, 2013; Merriam & Tisdell, 2015; Youdell, 2006). I am characterizing this action beyond ‘prolonged exposure’ that is focused on in ethnographic studies in that it attends to the experiential qualities that are observed and then interpreted in the moment, which then leads to a more intuitive treatment of the data later on during analysis. This entrenchment, this deeply interactive role of researcher and participant, leads to a permeation of interpretation throughout the research project, thus ensuring that consistent and comparative methods are utilized both in data collection and data analysis. To this end, I now turn to elaborating on the subsequent two requirements in data analysis.

**Data Analysis**

Drawing on Wainwright and Russell’s 2010 method of coding audio within NVIVO, I proposed an open audio coding step wherein the researcher who had the entrenched presence within the project would identify the discursive moments in coordination with the field notes that had been previously recorded. This process took the form of coding the discursive moment as a set of social and discourse structures via listening to the audio being played back in NVIVO (Wainwright & Russell, 2010), and recording the referential topics within a shortened transcript form that would be used for future axial and selective coding via a constant comparative method using an interpretative lens (Fram, 2013) – in this case CDA.

The next method of data analysis occurred through the evaluation of the actual waveform of the audio itself to confirm the intuitive coding that was made from the previous two requirements. In this evaluation, the researcher draws from both the memories held about the experience, coordinates these memories with the field notes that were taken based on the initial interpretation of the discursive moments, identifies these moments through the open audio coding process, and then finally confirms these intuitive interpretations through the identification of changing inflections within the waveform of each discursive moments, as well as the transitions from one to another. For such an example of this change in waveform structures, see Figure 1 below that represents such an analysis within the NVIVO software.
Critical Education

Figure 1. Waveform analysis example for discursive moment reiteration level 1 code.

This method of analysis was pertinent in that the waveform provided a visual depiction of inflections in tone, which were triangulated with the field notes that were collected. In this way, the waveform analysis became indicative of a method to capture confirmation of the intuitive analyses that took place in the moment during field notes data collection; moreover, this extra layer of observation was pertinent in that it also refuted some notes where some interpretation of the discursive moments in situ were challenged for further consideration by the researcher given this extra layer of comparable data (waveforms) could be juxtaposed when questions of when these discursive moments started and ended was not so easily identifiable just by listening to the audio by itself. For example, in the example provided in Figure 1, there are changes in waveforms throughout the discursive moment; however, it was not until the waveform could be seen at a more macro-analytic level (i.e., more section of the audio revealed within the visual image) that the start and finish of the discursive moment could be confirmed in comparison to the field notes and the intuitive interpretations compiled within the field notes data. Given this background on the methodology, I now turn to the findings that emerged from this research.

Research Findings

Using the analysis above, 66% of the audio recorded could be coded into five distinct discursive moments; they are as follows in Table 1 with their respective explanations. Of these five social structures (Member-group dynamics), three distinct discourse structures (Personal and
social cognition uses) were identified that relate to how power and agency played out within the social structures facilitated by the professor: Affirming/Refuting, Inquiring, and Challenging – each discourse structure is shaded as they related to where they were observed within the five social structures in the table. Figure 2, on the next page, also provides a graphical representation of these intersecting codes and their differences.

Table 1

**Selective Codes of Discursive Moments: 5 Social Structures and 3 Discourse Structures**

<table>
<thead>
<tr>
<th>CODE</th>
<th>Explanation of Coded Discursive Moment (Discourse Structure)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reiteration</strong> Level 1 (R1)</td>
<td>Professor uses student talk by affirming or refuting claims s/he poses without explicit reference to its source value through reiterating student’s ideas</td>
</tr>
<tr>
<td><strong>Interaction</strong> Level 1 (I1)</td>
<td>Professor explicitly recognizes student talk as valuable through interaction with student as source of reference by affirming or refuting claims they pose</td>
</tr>
<tr>
<td><strong>Interaction</strong> Level 2 (I2)</td>
<td>Professor explicitly recognizes student talk as valuable through interaction with student as reference by inquiring about their ideas beyond what student poses</td>
</tr>
<tr>
<td><strong>Transaction</strong> Level 1 (T1)</td>
<td>Professor builds on student talk within multiple interactions and values its source through transaction by inquiring beyond what students pose</td>
</tr>
<tr>
<td><strong>Transaction</strong> Level 2 (T2)</td>
<td>Professor builds on student talk within multiple interactions and values its source through transaction by challenging students beyond what was posed</td>
</tr>
</tbody>
</table>

The most pronounced difference between the social structures occurred between reiteration and interaction, as well as interaction and transaction – interaction and transaction having multiple levels based on the discourse structures identified. Reiteration and interaction were different as the professor stated that student discourse was valuable and specifically referenced that student talk as important within an interaction level, but not the reiteration one. For example, in a reiteration discursive moment, the professor would re-state what a student might have said but never give credit to that student within the group (class) as a whole beyond an affirmation or refutation of the claim as an entity in and of itself being made, devoid of authorship related specifically to the student who originally made the statement. For an example of this type of discursive moment, see the field notes exemplar on page 12 of this manuscript.
In this case, agency for that student in the social structure was limited to the power embodied by the professor as determinant of who can produce valid knowledge in the course (i.e., for reiteration that would be only the professor, even if said student stated the exact same idea). Within interaction discursive moments, explicit value was placed on the student as producer of knowledge by the professor through the same discourse structure as reiteration (affirmation/refutation) but also through a new discourse structure (inquiring). Students were seen as agents of knowledge production in an interaction discursive moment and with the introduction of a new discourse structure (inquiring) the professor showcased the goal to seek out further elaboration by the student(s) of their ideas, increasing student agency in the group.

Interaction and transaction social structures were different as the professor built on ideas through multiple interactions within these discursive moments. Also, in incorporating many interactions within a singular discursive moment, the transaction social structures focused on students as on-par as legitimate producers of knowledge in their own right, particularly without the legitimization that was emphasized in the interaction social structure. For example, in a transaction discursive moment, the professor and students would go back and forth with the professor specifically guiding discussion as an inquiry into how students were making sense of the idea posed by another student or the professor. This inquisitive discourse structure, similar to interaction level 2, focused on students as agents of knowledge production.

However, through a new discourse structure (challenging), the professor moved beyond just inquiring about the students’ production of knowledge and, instead, problematized why
students were thinking in a certain way, and how they came about to understand the ideas they posed. In this way, the final level (transaction level 2) was the most complex in that it involved multiple interactions and then embedded a discourse structure (challenging) that went beyond mere inquiry into their ideas. A detailed example of this type of interaction is provided below in Table 2, with the corresponding audio from which this transcript is derived being accessible at the following link: https://figshare.com/s/21d655d3da3bb53cc745.

Table 2

Example transcript of transaction level 2 code; content and group-member interactions

<table>
<thead>
<tr>
<th>Shorthand Transcript of Content of Discursive Moment</th>
<th>Professor and Students Interaction Shorthand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. [S] Professionalism comes with rules about not opening up, is that something, where does that originate from?</td>
<td>1. S makes statement and then asks question;</td>
</tr>
<tr>
<td>2. [P] That's the nature of the discipline</td>
<td>2. P responds;</td>
</tr>
<tr>
<td>4. Those kind of stereotypes of teacher, the person with more knowledge and established notions of the teacher as purveyor of knowledge …</td>
<td>4. P elaborates and talks over S trying to respond to P comment;</td>
</tr>
<tr>
<td>5. [S] I'm wondering if that’s a more prevalent masculine thing because it’s the way education was originally a very masculine practice … male students choose role model for knowledge … whereas girls that's not enough</td>
<td>5. S poses point that complicates P’s statement about teacher stereotypes;</td>
</tr>
<tr>
<td>6. [P] I agree, but it’s a function of context, of environment, masculine male-dominated world we live in … roots in science and implications of local settings, there are students in classrooms dealing with post-colonial trauma and that affects how they learn, but it's not a gender, gender is a social construction and everything is the social construction and all constructions become self-fulfilling prophesies, enacting roles</td>
<td>6. P affirms, elaborates on point, and challenges S.</td>
</tr>
</tbody>
</table>

Given the amount of data collected in this research, I will now provide the following graphical representations of the descriptive analyses, summarized in Table 3 on the next page, which will be elaborated on their importance to the claims made above in the discussion section.

---

1 The audio clip provided within this link is purposefully distorted to maintain the anonymity of professor and student within the clip.
Table 3

Figures Used to Represent Collected Data with Descriptions

<table>
<thead>
<tr>
<th>Figure Number</th>
<th>Description of Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 4</td>
<td>Percentage Prevalence of Each Discursive Moment Type</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Mean Time of Each Social Structure</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Percentage Prevalence of Each Type of Lesson Produced by Class</td>
</tr>
</tbody>
</table>

Discussion

The vast majority of discursive moments fell into two types: reiteration level 1 and interaction level 1 (see Figure 4). At these levels, students are affirmed or refuted in their claim based on the discourse structure observed, but are differentiated by the nature of the social structure (i.e., interactions affirm/refute in such a way so as to emphasize student agency within the claim being made). Given that over 75% of all discursive moments that occurred within this course were of these types, it would be sufficient to say that the nature of the course itself was focused on the professor determining what knowledge was valuable, irrespective of whether reference was given to the student as the source of that knowledge claim.

It shouldn’t be surprising, then, that when these students were asked ‘What components of this course were least effective’ at achieving the goals of the course anecdotal responses were along the lines of ‘constant lecture,’ ‘heavy-handed questioning,’ ‘lack of focus on the readings,’ ‘tangential discussions,’ and ‘peer-to-peer group discussions.’ Complimenting these comments were additional anecdotal responses when students were asked ‘What components of this course were most effective,’ which included ‘the professor talking “about anything”,’ ‘making explicit connections,’ ‘the few discussions we had,’ ‘the professor leading the discussion,’ ‘learned a lot from the professor … when they spoke and “lectured”.’
Indeed, it is evident that when some students reported ‘hating group work’ that the focus of the course may be relegated to being told the answer and being provided with affirmation and/or refutation by the professor as agent of authority. While these responses may have only occurred anecdotally (i.e., not able to be analyzed based on frequency and preponderance), the nature of this qualitative data complicates how we think about different students experience the discursive moments adopted in the course. Moreover, while no claim to objectivity or statistical analysis can be made here as to the causality of these responses to their success on the final unit plan (as was not the purpose of this research), these anecdotal comments provide another view into the complexity of the social dynamics of courses such as this, and these discursive moments’ impacting course outcomes.

In addition to this analysis of discursive moments, the mean times spent on each type were not significantly different statistically (see Figure 5 on the next page). Thus, when thinking about the types of discursive moments used in the course, it is evident that it does not become determined by the length of the moment; instead, the social structure and discourse structure determines the type of discursive moment, which leads to a final analysis of power and agency related to specific structures to facilitate discussion in the classroom.

This heavy focus on professor-initiated and professor-guided discussion is often seen in higher education spaces, in education courses (as presented here), and beyond in content-based courses such as science (e.g., high school physical sciences; Boda, 2018). In turn, a recent meta-analysis of critical thinking strategies that can be used to foster “purposeful, self-regulatory judgment that results in interpretation, analysis, evaluation, and inference, as well as explanations of the considerations on which that judgment is based” (Abrami et al., 2015, p.275) suggests that teacher-led discussions and situated “problem-solving and role-playing” are two consistent pedagogical techniques to foster thinking about issues critically (i.e., analytically) (Abrami et al., 2015, p.302). Therefore, while critical thinking in the analytic sense is not critical
theory in terms of analyzing issues of power, language, culture, and history, the connection between the two can be seen in the process through which the goal is achieved.

The course analyzed in this paper emphasized a heavily professor-led pedagogy within the discursive moments that were enacted in the course, but the results of such a learning environment did not lead to the majority of the students to focus on critical issues in the lessons students planned for their future classrooms (less than 40% dialogic [focusing on student learning] or transformative [focusing on power, language, culture, and history], see Figure 6 below). The students, instead, relied on content-based pedagogy (inquiry pedagogy and scientific practices) as a catch-all for deciding the most effective pedagogical strategies to employ with diverse populations. This is evident in their lesson planning across the different demographics the students chose to address (e.g., students labeled with disabilities; Black and Brown youth). In such a course, as being the only ‘diversity requirement’ for both the master’s and doctoral degrees in this program, these results should give us all pause to think about our own practice in terms of how we foster such discursive moments in our classrooms when we engage dialogically with our students, and whose authority of knowledge is most valued in these contexts.

The lack of criticality fostered in the students’ prospectus planning for diverse contexts, and relevant pedagogy for the populations therein, should not solely be placed on the discursive moments that were produced in the class; indeed, many other variables play a role in the production of a critical consciousness that is important in such a course (Garrett & Segall, 2013). However, given that the nature of the discursive moments observed here were centered on an affirmation and refutation discourse structure, the reality of these reiterations and interactions is that they remain focused on the professor as sole-determinant of valuable knowledge. This might explain why such a pedagogy that is enacted with the best intention (i.e., to help guide students in making connections they don’t ‘see’ and providing them with a critical view of the world) lacks in its ability to produce the qualities of a critical consciousness that has been shown to
deeply situated in making sense of the world based on previous experiences related to these new concepts being presented (Gay & Kirkland, 2003; McDonough, 2015).

Given that over 66% of this course was populated by discursive moments and not group-work, an argument can be made that courses such as this should focus on the nature of the discourse structures and the social structures that are prevalent within these spaces. In doing so, this call does not place blame on professors that emphasize a more professor-guided inquiry into multicultural issues pertinent for urban contexts that relate to critical pedagogy – quite the opposite. Instead, why don’t we think about these findings as new ground from which to engage ourselves with the praxis that is crucial for bettering our practice – challenging us to move beyond ourselves and look at the realities that we produce in our classes.

Indeed, our purpose as critical teacher educators is not to embolden ourselves as the pinnacle of knowledge to be learned by our students, at least not in my mind. To be a critical teacher educator requires us to relinquish power and foster agency in our students to make visible the nature of their thought process so that we may problematize and perturb their thinking in ways that they can develop a more critical lens for themselves. If we do not do so, can we claim to be critical? If criticality is premised on the creation of a lens from which to analyze issues of power, language, culture, and history, then don’t students also have to analyze their own cultural histories that have led to alliances with particular forms of language and power? Given that the anti-critical movement in teacher education is building, emphasizing a ‘model’ teacher mentality that can be checked off in a box on a piece of paper, I think we owe it to our students and ourselves to push back in ways that allow the students in our classes to engage with their own thought processes guided by our inquiries and challenges. If we do not do this, are we not any different than our anti-critical counterparts?

As I argue here, why don’t we as critical teacher educators take the time to inquire about the discursive moments we use to truly reflect on our practice, take action against any anti-critical practices we enact, and therein ‘practice what we preach’ in terms of the ideological underpinnings we wish to foster in our students. Based on the research presented here, professors of courses such as this one – those ‘sole diversity requirements’ – need to take the time to think about more than just what they are saying in classes such as this one. They need to inquire into how they are responding in this dialogue with their students to (i.e., their discursive structures) and their thoughts on how to promote interactions with students to produce this discourse (i.e., their social structures). Put more simply, as this research shows, a professor can talk about critical issues, but if s/he are primarily talking to their students about these issues and denying their students participation in constructing that discourse there should be no assumption that their students can take that discourse and apply it pragmatically.

Indeed, this lack of attention to agency – the lack of appreciation for student input and the ways they are constructing their meaning of ideologies beyond their personal experiences – was prominently seen in this research, and therein could be a contributive factor in the students’ inability to bridge theory to practice. Based on the research provided here, without engaging students in the interrogation of their own belief systems through discourse that is designed to emphasize more interactive social structures in these contexts, and then professors responding in a discourse structure that further fosters this inquiry into students’ bodies of knowledge, there can’t be an assumption that our teacher-candidates will use the knowledge we impart to them.
We must practice what we preach, in all manners of articulating this ideology. As critical teacher educators it is not merely about talking the talk, nor is it just about walking the walk. We must move beyond just modeling discourse practices that we want our students to embody in the classroom toward inquiring about the discursive moments we utilize in our courses to foster bodies of knowledge. The process of transformative teacher education cannot and will not stand for superficial analyses of discourse as content, nor will it be changed by vague uses of the word ‘practice’ to emphasize a disciplinary-focused modeling structure. Transformative teacher education requires transformation of social and discourse structures in our higher education courses, and therein ourselves as teacher educators. Let us embody this transformation, and accept that we might need to change what we do, even if it is a hard road ahead.

References


Boda, P. A. (2018). Exclusion from participation in science: Confessions from an ally on the other side of the fence. In M. Koomen, S. Kahn, C. Atchison, & T. Wild (Eds.), Toward inclusion of all learners through science teacher education (pp. 301-314). Brill/Sense Publishing.


**Author**

Phillip Andrew Boda, Ph.D., is currently a Lecturer and Post-Doctoral Researcher at the University of California, Berkeley. He previously held a Post-Doctoral Research Fellowship at Stanford University between 2017-2019, and received his doctorate from Teachers College, Columbia University in 2017. His work investigates the overlapping intersections among Cultural/Disability Studies focused on Urban Education, the Learning Sciences, and STEM education.