

Teacher Learning as Curating
Becoming Inclusive Educators in School/University Partnerships

Federico R. Waitoller

University of Illinois at Chicago

Alfredo J. Artiles

Arizona State University

Cite as

Waitoller, F. R., & Artiles, A. J. (2016). Teacher learning as curating: Becoming inclusive educators in school/university partnerships. *Teaching and Teacher Education*, 59, 360-371.

1. Introduction

This study examined teacher learning amid school/university partnerships for inclusive education. Inclusive education is a global educational movement with multiple contested meanings (Clough, 2000). In fact, commentators argue that inclusive education has lost its original radical meaning, namely to transform the ‘regular’ school (Slee, 2011). For instance, efforts to develop teacher capacity for inclusive education have been critiqued for being narrowly focused on including students with disabilities in general education and for ignoring the longstanding and troubling links between disability, race gender, and class (Waitoller & Artiles, 2013). As a response to these critiques, and synthesizing prior definitions, inclusive education has been conceptualized around alternative perspectives on justice (Fraser, 2009) as follows:

Inclusive education is a continuous struggle toward (a) the *redistribution* of quality opportunities to learn and participate in educational programs, (b) the *recognition* and value of differences as reflected in content, pedagogy, and assessment tools, and (c) the opportunities for marginalized groups to *represent themselves* in decision-making processes that advance and define claims of exclusion and the respective solutions that affect their children’s educational futures (Waitoller & Kozleski, 2013, p. 35)

According to this definition, exclusion is a dynamic and historically evolving process created by intersecting forms of injustice based on misdistribution, misrecognition, and misrepresentation (Waitoller & Artiles, 2013; Crenshaw, 1991). These factors include but are not limited to (a) the lack of access to quality education (i.e., exclusion based on misdistribution), (b) the mismatch between students’ abilities, cultural and language backgrounds and those prevailing in schools (Nasir, Rosebery, Warren, & Lee, 2006) (e.g., exclusion based on misrepresentation), and (c) the constrained opportunities for students and their families to represent themselves in key educational decisions (Harry & Klingner, 2006). Examples of these complex forms of exclusion are found around the

developed and developing worlds (see Artiles, Kozleski, & Waitoller, 2011). Thus, rather than assimilating those considered as different to the normative ways of thinking and doing of schooling, inclusive education demands the transformation of existing policies and practices to dismantle injustices based on misdistribution, misrecognition, and misrepresentation.

This ambitious inclusive agenda has implications for teacher learning. Rather than only learning accommodations and modifications to include students with disabilities in general education, pre- and in- service teachers should learn to dismantle intersecting forms of exclusion based on misdistribution, misrecognition, and misrepresentation (Waitoller & Artiles, 2013). School/university partnerships that prepare teachers to fuse teaching practices such as cultural responsiveness and inclusive pedagogies (e.g., co-teaching and differentiated instruction) can contribute to such an ambitious inclusive agenda. However, there is a scarcity of research on teacher learning for this purpose and in such contexts. The purpose of this study is to advance our understanding of how teachers learn to be inclusive educators amid contradictions that emerge when schools and universities engage in dismantling overlapping forms of educational exclusion.

Next, we review the literature on school/university partnerships for inclusive education, identifying some of its limitations. Then, we discuss the theoretical lens that informed our study, describe the research methods, and report the study findings. Finally, we build on Levi Strauss' concept of *bricoleur* (1974) and prior research to advance the notion of curating in the study of teacher learning.

2. Teacher Learning in School/University Partnerships for Inclusive Education

School/university partnerships play a key role in developing teacher and school capacity for inclusive education as they bridge the theory-practice gap and contribute to innovative inclusive practices (McIntyre, 2009). Partnerships potentially allow for leveraging resources and expertise, achieving outcomes that could not be accomplished by an isolated institution (McIntyre, 2009). This

leverage is of particular significance for students experiencing intersecting forms of exclusion because their educational needs typically demand the crosspollination of various forms of expertise (Waitoller & Kozleski, 2013).

Professional development initiatives have relied on collaborative action research projects, moving away from traditional in-service training models (Avalos, 2011). Forty-eight percent of the research published in peer review journals across the globe on professional development for inclusive education examined a form of school/university partnership using action research (Waitoller & Artiles, 2013). This body of research suggests such partnership model is one of the most promising approaches to develop school capacity for inclusive education (Waitoller & Artiles, 2013).

Yet, contradictions are ubiquitous in school/university partnerships as both institutions tend to have their own understanding of teaching, learning, and educational equity (Bartholomew & Sandholtz, 2009; Smagorinsky, Jakubiak, & Moore, 2008); involved organizations are committed to use particular toolkits, and are enveloped within distinct histories and policy constraints. Amidst these tensions, teachers become objects and subjects of learning (Avalos, 2011). They have to comply with the demands of working at schools (e.g., conform to different curricula, instructional and assessment practices), as well as learn and utilize the tools and skills that they are taught in their university programs. These conflicts, among other factors, mediate teacher learning (Smagorinsky et al., 2004).

Research on teacher learning amid school/university partnerships for inclusive education has been informed by two distinct perspectives on learning that have not been systematically articulated (Waitoller & Artiles, 2013). First, this research has been informed by an individual perspective based on cognitive and behavioral theories of learning, relying on individuals as the unit of analysis (e.g., Avramidis & Kalyva, 2007). As a consequence, complex interactions between teachers, and their

teacher educators, administrators and students within schools' institutional arrangements are downplayed and research is culturally and institutionally decontextualized (Waitoller & Artiles, 2013). Alternatively, this work has been informed by concepts associated with socio-cultural theory, such as communities of practice (e.g., Ainscow, Booth, Dyson, 2006). This scholarship focuses on descriptive accounts of school-wide changes in practices and policies. As a result, documentation of community changes have been privileged at the expense of situated analysis of teacher learning (Artiles, Kozleski, Dorn, & Christensen, 2006). Thus, teacher-learning research for inclusive education has not generated a robust understanding and theorization of how teacher learning occurs in the midst of tensions that emerge in school/university partnerships. In this article, we use Cultural Historical Activity Theory (CHAT; Engeström, 1987) to bridge individuals and their institutional and community contexts, and thus, better understand teacher learning.

Theorizing Teacher Learning in School/University Partnerships

We assume that human behavior unfolds in activity systems which are complex social organizations that involve subjects (e.g., teachers), their communities (e.g., school and university staff), mediational artifacts (e.g., curricula, and assessments), a division of labor (e.g., who does what), rules (e.g., school policies), and the object of the activity (e.g., students' learning of academic standards, teachers' learning) (Engeström, 1987). For instance, we understand a classroom lesson as situated in an activity system in which teachers' and students' actions are mediated by the elements of the activity system—i.e., object, artifacts, rules, roles and community perspectives. Activity systems afford and constrain teachers' opportunities to learn and implement what they are learning in their teacher preparation programs. Focusing on activity systems broadens the unit of analysis beyond the mind of teachers to teachers-acting-with-mediational-artifacts-within-institutionally-and-historically-contextualized activity systems (Wertsch, 1991).

Mediational artifacts are an important element of activity systems as they mediate how people come to know, make meaning of, experience, and act upon the world (Cole, 1996). Artifacts are both material (e.g., a scripted curriculum book) and also internal representations of such mental models (e.g., the meaning of teaching or inclusive education) (Cole, 1996). We use the notion of *pedagogical artifacts* to describe artifacts that have been created for teaching and mediate teachers' thinking and actions in the classroom. For instance, co-teaching (Friend & Cook, 2010), differentiated instruction (Tomlinson, 2014), and cultural responsiveness (Villegas & Lucas, 2002) are pedagogical artifacts. They have emerged from and have been developed and appropriated by certain communities of practice (Wenger, 1998) to teach particular kinds of students (e.g., students with disabilities and students from ethnically diverse backgrounds).

School/university partnerships in which teachers learn to become inclusive teachers in school-based contexts can be understood as a *boundary-zone activity* (Konkola, 2001). A boundary-zone activity is a space within which the objects and mediating artifacts of different activity systems overlap and as a result shared objects may emerge (Konkola, 2001). For instance, when university professors coach teachers in their classrooms as part of school/university partnerships, a boundary-zone activity is formed between the university program and local schools (see Figure 1). Thus, researchers studying a classroom lesson ground the unit of analysis in the entire activity system of the lesson (i.e., subjects, object, artifacts, communities, roles, and rules) and its network relations with adjacent activity systems (e.g., school and university program activity system) (Engeström, 2001).

Contradiction is a key construct to understanding how learning occurs and activity systems change. According to Engeström (2001), "Contradictions are not the same as problems or conflicts. Contradictions are historically accumulating structural tensions within and between activity systems" (p. 137). Contradictions are ubiquitous in boundary-zone activities. In our analysis, we focused on

quaternary contradictions (Engeström & Sannino, 2010), which are contradictions between connected activity systems (e.g., school and university activity systems). According to this perspective, it is critical to examine the contradictions that emerge in a school/university partnership for inclusive education. Answering this question can shed new light on the disjunctures and misalignments in the contexts of teacher learning.

It is important to note that contradictions embody potential for learning. As participants in activity systems engage in a dialogue and negotiate their understandings of artifacts (e.g., cultural responsiveness) and the object(s) of their activities (e.g., student learning), new objects may emerge and artifacts may take different forms (Engeström, 2001). Negotiations and redefinitions of the object and artifacts demand a spiral, dynamic, and continuous examination of the forces causing contradictions, towards a more sophisticated understanding of the shared object (e.g., students *and* teacher learning). This can occur if the players involved continue to be committed to the partnership. In CHAT terms, this is defined as expansive learning (Engeström, 1987). Thus, we defined teacher learning as the resolution of contradictions that involves the reformulation of the elements of the activity system in which teachers work.

The concepts of *privilege* (Wertsch, 1991) and *appropriation* (Newman, Jenkins, & Cole, 1989) are important for the analysis presented in this manuscript. Wertsch (1991) used the term *privilege* to describe when “one mediational means is viewed as being more appropriate or efficacious than others in a particular sociocultural setting. It is concerned with the fact that certain mediational means strike users as being more appropriate or even as the only possible alternative” (p. 124). Appropriation is the process through which teachers make mediational artifacts their own as they participate in goal-oriented activity systems (Newman et al., 1989). It is a two-way process: Teachers appropriate the artifacts of the institutions in which they participate and, in the process of doing so, they reconstruct and transform these artifacts (Newman et al., 1989).

Using this theoretical stance, this study answers two research questions: (a) What contradictions emerge in the context of a school/university partnership for inclusive education? and (b) How do teacher residents resolve these contradictions as they learned to be inclusive education teachers?

4. Methods

4.1 Background: Broader Research Initiative and University Program

We drew from a broader project that comprised a partnership between a Southwestern state university in the U.S and three elementary schools located in an urban district. The aim of this partnership was to transform schools for inclusive education and prepare teachers through school-based professional development programs (see Kozleski & Waitoller, 2010) for a full description of program). We used the term “teacher resident” to describe in-service teachers who were working at partner schools while at the same time attending the master’s program.

On Monday evenings, teacher residents attended a face-to-face thesis seminar in which they learned about inclusive (i.e., differentiated instruction and co-teaching) and culturally responsive pedagogies, that were taught within a social justice perspective. Co-teaching (Friend & Cook, 2010) and differentiated instruction (Tomlinson, 2014) were taught to address the needs of students of differing abilities and learning styles in the same class and to provide multiple access points for them to maximize individual success while eliminating tracking. Cultural responsiveness was taught as an artifact to recognize and value students’ cultural repertoires, using them as instructional tools and valuing and understanding learners’ histories and unique toolkits (Villegas & Lucas, 2002). Thus, these pedagogical artifacts were taught as tools to redistribute access to learning opportunities and to recognize and value student differences.

On Wednesdays, site professors (i.e., university faculty who facilitated these seminars) observed teacher residents while they taught or co-taught a lesson in their classrooms. After each

observation, a site professor discussed and gave feedback about the lesson to the teachers. The purpose of these meetings was to help teacher residents translate into practice what they were learning in the seminars.

4.2 Desert Pride Elementary

We selected Desert Pride Elementary (pseudonym) according to principles of *naturalistic inquiry* (Lincoln & Guba, 1985) in which the research design was emergent and the research site was selected according to the purpose of the analysis. Desert Pride was implementing two separate initiatives that provided a fertile ground to study contradictions amid overlapping (university and school) activity systems. The school was implementing, per the school district requirement, curriculum maps. Curriculum maps broke down state standards into smaller components, indicating what needed to be taught each day in order to ensure that all standards were sufficiently addressed. Teachers were given the responsibility to work in grade level teams to develop lesson plans according to these maps and with the use of the approved district curriculum (i.e., Harcourt Curriculum by Houghton Mifflin [2009]). These lesson plans were expected to be implemented seamlessly across grade levels. Administrators and/or language coaches were required to conduct daily walkthroughs to ensure that teachers were following the districts' required teaching practices.

Furthermore, Desert Pride collaborated with the university program to develop capacity and pilot inclusive classrooms. Students with special education needs comprised 7% of the student population (see Table 1), and the majority of these learners were identified with learning disabilities (70%). This pilot program only included students with mild disabilities (i.e., learning disabilities and mild behavioral disabilities), while students with more severe disabilities spent most of the school day in a segregated classroom. Therefore, inclusive education was in its infancy at this school.

4.3 Participants

Participants were selected using a purposive sample to provide information that was relevant to our research questions (Payls, 2008). The participants included Desert Pride's principal (Carmen) and language coach (Kim), three site professors (Margot, Marlene, and Urma), and three teacher residents (Debbie, Tina, and Kelly; see Table 2). We assigned pseudonyms to participants and their schools, and we stored their data in password protected folders to ensure their confidentiality. Informed consents were obtained from all of our participants, according to our University's Institutional Review Board.

4.4 Data Collection and Analysis Procedures

The data collection lasted an entire academic year. The analysis involved two steps that corresponded to the study questions.

4.4.1 Studying contradictions in the context of a school/university partnership for inclusive education

We collected 15 in-depth interviews with participants (See Table 2). Each interview was open-ended, lasted approximately 45 minutes, and was conducted at Desert Pride by one of the authors. The interviews were audio recorded and then transcribed for analysis. We collected voice-recordings of eight seminars of the masters' program and gathered 49 field observations completed weekly by the site professors. They included observations of teachers and school-wide practices, and conversations with teachers, principals, and language coaches. In addition, we gathered artifacts from the school and the masters' program (e.g., school policies, class syllabi and handouts, and evaluation rubrics).

The unit of analysis for the first research question included the interaction between the activity systems of the school and the university master's program. To identify contradictions, we closely examined all the aforementioned data, flagging instances in which participants mentioned conflicts between the school and the university program. Following CHAT, we coded each instance

of conflict according to the elements of the activity system (i.e., rules, division of labor, artifacts, subjects, objects, and community) (Engeström, 1987). Then, we utilized axial coding (Strauss & Corbin, 1990), writing memos about codes and their relationships and then reducing the amount of codes by comparing them with one another and connecting them with CHAT research (e.g., Engeström, 2001) and our definition of inclusive education (Waitoller & Kozleski, 2013). This was an iterative process that entailed going back and forth between the codes, the memos, and prior CHAT research, resulting in a sequential and deeper analysis of the evidence so that nuanced descriptions of the contradictions could emerge.

4.4.2 Studying teachers resolving contradictions

Each teacher resident was filmed four times for an hour in March, May, September, and December. The video recordings took place on Wednesday, which was the day of co-teaching for teacher residents and university professors' site visits. We chose to record a lesson involving co-teaching as it provided an opportunity to examine how teachers used the artifacts they were acquiring in their masters' program while operating within the constraints and affordances of their daily classroom routines. In addition, we conducted a video-stimulated recall interview (Smagorinsky & Coppock, 1994) with each teacher after recording her lessons. We conducted these interviews to make teachers' decisions and thinking visible as they attempted to resolve contradictions in situ.

We analyzed the video-recordings of teacher practice following Erickson and Schultz's (1997) steps for video analysis. Our goal was to identify *participant structures* (Phillips, 1972) that comprised particular types of encounters and structural arrangements in interactions. Through this initial analysis, we identified four participant structures: Teacher-centered activities, independent work, one-on-one conferences, and transitions. We focused subsequent analyses on teacher-centered activities because these participant structures comprised the largest proportion of all observed participant structures (i.e., 57%). Teacher-centered activities included activities in which the teacher

was leading and controlling the learning activity, and they involved a marked sequence of interactions based on Initiation-Response-Evaluation (IRE) patterns of interaction (Cazden, 1988).

Once all teacher-centered activities were identified across the classroom videos, we coded these instances according to the elements of the activity system identified during the analysis corresponding to the first research question. For instance, we identified the district and school policies regulating classroom practice and the pedagogical artifacts that teachers were learning in the masters' seminars. We coded in the same manner the video-stimulated recall interviews to enrich the analysis with teachers' understandings of their own actions and decisions. Then, we examined the juxtaposition of codes and wrote memos that advanced theoretical assertions about how teachers resolved contradictions. Finally, we tested these assertions against all teacher-centered participant structures. At that point, we searched for information in teacher residents' entry and exit interviews that would disconfirm, contextualize, or contribute to these assertions. This was an iterative process that involved going back and forth between the assertions, the data, and the literature on sociocultural views on learning (e.g., Cole, 1996; Wertsch & Rupert, 1993). This resulted in a sequential and deeper analysis that served as an intermediate step between coding and the first draft of the manuscript (Charmaz & Mitchell, 2001). These analyses revealed key findings about how teachers resolved contradictions that applied across videos and findings that described the local flavor of some teachers' practice.

We report the findings corresponding to our second research question drawing largely from the analysis of a lesson about suffixes that took place in Debbie's classroom in April, as it constituted a paradigmatic case of the teaching practices documented during the 12 months of the project's fieldwork. The analysis of this lesson entailed the triangulation of findings with several data sources. In the chosen lesson, Debbie was including students receiving special education while trying to implement the pedagogical artifacts taught in the masters' program. In addition, the site professor

and the language coach were simultaneously observing Debbie's lesson. Focusing on Debbie's practices allowed us to deeply explore how contradictions were resolved in boundary-zone activity.

We used several strategies to warrant the trustworthiness of the findings. First, we relied on prolonged engagement and used data triangulation (Denzin, 1970) with at least three different data sources. In addition, we utilized member checking and peer debriefing strategies (Lincoln & Guba, 1985).

5. Findings

5.1 Contradictions in the context of a school/university partnership for inclusive education

We found that quaternary contradictions (i.e., contradictions between activity systems) were evident on Wednesdays, a day when site professors and a language coach observed the teachers in their classroom. Site professors' visits to teachers' classrooms constituted a boundary-zone in which the activity systems of the school and the master's program overlapped (see Figure 2). As part of their joint work in the school/university partnership, the language coach and the university professor were expected to collaborate when observing teacher residents. Yet, the artifacts, rules, and objects of their activity systems created contradictions. On the one hand, teacher residents were required to use pedagogical artifacts (i.e., co-teaching, differentiated instruction, cultural responsiveness) they were learning in university classes so that they could receive a coaching session from site professors. On the other hand, the language coaches' responsibility was to examine whether teachers' practices were aligned with the schools' required artifacts (e.g., curriculum maps and Harcourt curriculum), to provide them with feedback, and to ensure that all students were taught academic standards. Margot, a site professor, documented in a field note:

One of the things that the language coach was extremely upset about was that some of the co-teaching strategies and assignments we would have them try, "Well, don't you know that they are adjusting their lesson plans from the curriculum maps that they have been given?"

The curricular map says to teach it this way, and because they're doing such and such a strategy, they are doing it that way. You need to change what you are asking them to do, and their practicum courses to be aligned with the district curriculum mapping."

Kim, the language coach at Desert Pride, gave further insight about this issue:

The principal feels very strongly about this too, 'you're a teacher on our campus. It doesn't matter what program [i.e., masters' program] you're in or what part of the day we're going.

We are doing this because this is a practice at our school'. (Interview December 13th)

There was a contradiction in the boundary-zone activity system between a school rule (i.e., district curriculum policies) and its mandated artifact (i.e., curriculum maps) and the pedagogical artifacts of the masters' program (i.e., co-teaching). The language coach thought that co-teaching was incompatible with the district's curriculum maps. To the school administration, all teachers needed to follow district guidelines regardless of whether they were part of the masters' program or not, and the practices of the masters' program needed to accommodate to those guidelines.

Similarly, quaternary contradictions emerged as teacher residents were coached by their site professors to use cultural responsiveness. When asked about how she could create a culturally responsive lesson, Kelly, a teacher resident, answered:

A lot of those books, we try to bring in as much as we can [...] the district decides what we're supposed to use and then the principal decides—the principal is pretty much a stickler to the reading is just—you know, "You need to be doing Harcourt materials". Like even during our small groups, she doesn't want us to pull in chapter books because it's not part of Harcourt. (October 4th)

An artifact mandated by the school administration such as the Harcourt curriculum, which was considered to be an effective tool to teach the academic content stated in curriculum maps, was seen by teachers as an obstacle to using the pedagogical artifact taught in the masters' program, i.e.,

cultural responsiveness. In this case, selecting culturally relevant books (*a* feature of cultural responsiveness) was in contradiction with the district curriculum mandates.

Similarly, Urma, a professor, documented her work with Tina, another teacher at Desert Pride.

When I asked her about a focus goal for the semester specifically related to culturally responsive practices she had a difficult time thinking of one because of the rigidity of the curriculum and the expectations. She is not allowed to bring in outside books for the students, but rather needs to use a specific book on specific days. All team members need to work on the exact same thing at the same time. (Field note September 30th)

All second grade teachers needed to be teaching the same objective with the same materials at the same time. This practice not only reduced the breadth of possible mediational means for students, but also aspired to standardize pedagogical practices by forging a teacher proof curriculum. The implementation of culturally responsive practices would require nothing less than disrupting key components of the accountability regime imposed on the school activity system.

Interestingly, there were underlying and competing claims for justice and inclusivity at the core of quaternary contradictions. The school curriculum mandates were informed by a justice claim based on the redistribution of access to academic standards (El Haj, 2006). This claim rests on the premise that educational inequity is the result of unequal academic treatments of students that tracks students along class, racial, and disability lines (El Haj, 2006). Underachievement of certain groups of students is due to limited access to high academic standards. In addition, this claim for equal access to standards aims to change disparities in educational outcomes. This has been a historical claim in the justice struggles for students receiving special education as they tend to be excluded from the academic content used in general education classrooms (McLaughlin, 2010). Desert Pride required instruction to be almost identical across the same grade level to ensure equal access to

academic standards for *all* students. Curriculum maps and Harcourt curriculum were used to facilitate this type of access.

In turn, the pedagogical artifacts taught in the masters' program combined at least two notions of social justice. While co-teaching and differentiated instruction could be viewed as pedagogical artifacts that aim to redistribute access to academic standards, they are also based on the recognition and value of students' differences. These artifacts were presented in the masters' program as tools to eliminate tracking and provide multiple means to participate and learn, valuing and recognizing students' differences. In addition, cultural responsiveness was dissonant with the schools' *redistributive* practices as it was based on the *recognition* dimension of justice—that is, it aimed to recognize and value students' cultural repertoires, using them as instructional tools (Villegas & Lucas, 2002). Thus, while Desert Pride School aimed to become more inclusive by treating everybody the same, the pedagogical artifacts taught in the masters' programs were designed to value, and utilize students' differences for learning purposes.

These quaternary contradictions positioned teacher residents in unsustainable situations. They were concerned about being required to implement simultaneously artifacts and rules from different activity systems. During a thesis seminar in March, Tina, a teacher resident, stated: “is that I got hit first thing in the morning with the evaluation from the language coach before I co-taught and then doing co-teaching. She's sitting right next to my small group, I am like [doing a face of frustration].” Debbie expressed similar concerns:

I am wondering if I am meeting my school criteria and trying the new co-teaching... I sometimes feel like they're not looking at the co-teaching aspect, they're looking at your reading block. Are you doing what you're supposed to be doing during reading block? You're under that criteria that you know you're going to have a write up for it. (Debbie Interview, March 15th)

Throughout the year, teacher residents were in a double bind: practicing the pedagogical artifacts taught in the masters' program could lead to disrupting the school's policies and artifacts and complying with these policies and artifacts could result in deviating from the masters' program requirements. In other words, teachers could not work towards the dual object (i.e., their own and their students learning) of the boundary-zone activity system. What choices did these teachers have? How could teachers make sense of and resolve these contradictions and embrace the distinct objects of the school and masters' programs activity systems? We answer these questions through the analysis of Debbie's practices, with particular attention to one lesson as a paradigmatic case.

5.2 Curating: Resolving Contradictions in Boundary-Zone Activity

In an effort to resolve the quaternary contradictions, Debbie, acting within the affordances and constraints of the activity system, privileged (Wertsch, 1991) and appropriated (Newman et al., 1989) certain pedagogical artifacts taught in the masters' program (i.e., co-teaching and differentiated instruction) over others (i.e., cultural responsiveness). We called the combination of privileging and appropriating pedagogical artifacts *curating* (Waitoller, 2014). In other words, as museum curators select specific works of art over others to compose an exhibit, teacher residents privileged certain pedagogical artifacts over others (Waitoller, 2014). In the same manner curators make meaning of and interpret art works and display them with other pieces of art creating a particular experience for the viewer, pedagogical artifacts were appropriated creating an educational experience for students (Waitoller, 2014). Curating was situated in the boundary-zone activity system. That is, the elements of the activity system and its network relations with other activity systems mediated how Debbie privileged some pedagogical artifacts over others and appropriated them in particular forms. In the following sections we present three findings related to curating: (a) Cultural responsiveness: The unprivileged artifact, (b) Privileging co-teaching and differentiated instruction, and (c) Appropriating co-teaching and differentiated instruction.

5.2.1 Cultural responsiveness: The unprivileged artifact

Cultural responsiveness was not privileged in Debbie's lesson. Debbie provided some insight when the site professor asked how her lesson could have been more culturally responsive:

Maybe I can find words that they're more familiar with. And help them build connections that way. Then it can be more culturally responsive maybe. We kind of have, I don't know if you want to call it like a script, or a, you know, a dialogue that you have to stick to, so you don't have much flexibility in choice. And granted we do have the option if everyone on the team [grade level team] was willing to find new vocabulary words. And come up with some more culturally responsive stuff, as long as we were all doing it. (Video stimulated interview, April 4th)

Shortly after thinking of a way to make her lesson more culturally responsive, Debbie advanced a caveat. She could only do it if standardization was in the picture—i.e., all her grade level team decides to make the lesson more culturally responsive in the same way. As Debbie continued explaining, this was challenging:

It's very constraining because if you wanted to add in culturally responsive books, and you know if you wanted to take it a step further, then you really can't because if you're not on the same page as everybody. Like we had one person different, then we all got punished for it. A lot of people just really prefer to stick to what we have for Harcourt (Video stimulated interview, April 4th)

Throughout the remaining of that year, Debbie continued to leave out cultural responsiveness from her practices, and when asked about her use of this tool later that school year, she answered:

Yeah I don't think it's a negotiable. I think everyone feels really overwhelmed at this point with everything that we have to do. It's really frustrating because a lot of the things that we

learn, and the great philosophies and practices that we learn about in the program, you really don't get to implement in the classroom. (Video stimulated interview, November 18th)

As we indicated in the previous section, a curriculum policy required all teachers assigned to the same grade level team to be teaching the same content. The entire grade level team needed to be in agreement if changes were to be made to the curriculum. Though Debbie believed that cultural responsiveness was a “great philosophy,” she felt constrained about implementing it as it was in contradiction with one of the rules of the school activity system (i.e., rules about curriculum design). Debbie could not find a way to comply with the rules regulating the activity system of her lesson and opted to follow what was expected of her in *Desert Pride*, concluding that cultural responsiveness was neither appropriate nor available to her. In other words, Debbie could not reconcile the two different notions of justice informing these artifacts: the redistribution of access to academic standards and recognition of students' cultural repertoires.

5.2.2 Privileging co-teaching and differentiated instruction

We found that two pedagogical artifacts taught in the masters' program, i.e., co-teaching and differentiated instruction, were privileged in Debbie's lesson. The lesson started with Debbie introducing Tina, her co-teacher, to the students. Then, she separated the class into two small groups and one larger group of students. Debbie identified these practices as she watched the video of her lesson, “We are co-teaching. I think we started out with small group/whole group, and then she went in to take a small group while the rest of the group was working.” Later, she expanded, “we are differentiating instruction. Tina has a group and she's over there on the carpet. She's got a strategic group, I've got an intensive group and we're working on suffixes 'er' and 'est' ” (Video stimulated interview, April 4th). “Intensive” students were those learners who were far from achieving their reading benchmarks according to the Dynamic Indicators of Basic Early Literacy Skills (DIBELS)¹ (Good & Kaminski, 2002), while “strategic” students were close to achieving such

benchmarks. Though Debbie's quotes provide some insight into how differentiated instruction and co-teaching were appropriated, we put off this examination until the next section of the paper while analyzing in this section what contributed to privileging these artifacts.

We found that the dual object of the activity system of the lesson (i.e., students' learning of content dictated in the curriculum maps and Debbie's learning of pedagogical artifacts) contributed to privileging co-teaching and differentiated instruction. For instance, Debbie stated, "then you also have your co-teaching and differentiated instruction. I like having them [the site professors] come in because I feel like I'm going to get positive constructive feedback. I want to learn how to do it" (Video stimulated interview, April 4th). By privileging co-teaching and differentiated instruction, Debbie was able to work towards one of the dual objects of the boundary-zone activity system (i.e., learn inclusive pedagogical artifacts). In addition, co-teaching and differentiated instruction were perceived as effective artifacts to work towards the other object of the boundary-zone activity system, i.e., teaching all students' academic standards embedded in the curriculum maps. Debbie was concerned throughout the year about being able to teach all students. She stated:

When you have big numbers I feel like you fall short. Everyday I'm like, oh I missed this person or I didn't get to that person. It's like the worst feeling because you feel like you didn't service everybody [...] They are so far behind and every year that gap just keeps getting bigger and bigger [...] You know it's just having a bigger group and having so many low students. So when you have that co-teacher in here, it's like I feel like I can just get so much more done. I can see so many more students. (Video stimulated interview, April 4th)

Debbie expressed a similar concern when debriefing about a lesson that took place in September.

Well, it's really nice having a co-teacher with this type of class. As far as differentiation for a conversation, during writing time, I'll take the whole group and then she pulls them on a

¹ DIBELS is a widely used assessment in the U.S that aims to evaluate the acquisition of early reading skill such as phonemic awareness, alphabetic principle, accuracy and fluency, vocabulary and comprehension (See <https://dibels.uoregon.edu/>)

one-on-one basis [...] The kids who are really low in language get that extra help there and then in reading time, my lowest kids, I try not to let them ever be by themselves.

Debbie privileged co-teaching and differentiated instruction, as she thought these artifacts could help her teach the content dictated in curriculum maps to all students. These artifacts allowed her to do more teacher directed work and closer management of her “lowest students.” We must also note that privileging co-teaching and differentiated instruction was related to how these artifacts were appropriated in the boundary-zone activity; thus, we turn to examine this appropriation.

5.2.3 Appropriating co-teaching and differentiated instruction

We found that, when co-teaching and differentiated instruction were appropriated in the boundary-zone activity, they morphed from how they were taught in the masters’ program. For instance, take the definition of differentiated instruction that guided site professors’ teaching of this artifact:

Differentiated instruction addresses the needs of students of differing abilities and learning styles in the same class. The intent of differentiating instruction is to provide multiple access points for diverse learners to maximize growth and individual success. Differentiated Instruction is a series of essential strategies for working in heterogeneous classrooms and eliminating tracking. (Differentiated Instruction Rubric of the Masters’ Program)

According to the rubric, differentiated instruction should provide multiple access points and eliminate tracking. Conceptualized in this form, differentiated instruction is informed by a justice claim based on recognition of differences (Fraser, 2009). The goal is to value and recognize students’ differences as legitimate forms of participation and knowledge. In addition, co-teaching was taught in the masters’ seminar as an artifact that provides various levels of support to meet the needs of all students. In a university seminar, co-teaching was defined as “when two or more professionals jointly deliver substantive instruction to a diverse, or blended, group of students in a single physical

space. It serves to increase and/or differentiate the level of support offered to students (Thesis seminars, March 15th). Teacher residents were taught that co-teaching is more than just “having an extra body in your room to assist you. It’s having an equal professional teaching partner to work with in order to increase inclusion in the mainstream classroom and access to grade level curriculum” (Site professor field note, January 29th).

Furthermore, co-teaching and differentiated instruction were viewed as pedagogical artifacts that complemented each other, and they should be used together. For instance, a site professor wrote in a field note: “They are ready to be pushed a little more in their thinking during planning of lessons on how to best use the co-teaching strategy to differentiate their instruction on different levels in order to meet all students’ needs” (Site professor field note, March 24th). When used simultaneously, co-teaching and differentiated instruction were powerful artifacts that provided access for all students to academic standards *while* recognizing and valuing their differences.

Yet, when Debbie appropriated differentiated instruction and co-teaching, these artifacts changed in two different aspects. First, differentiated instruction and co-teaching morphed from recognizing and valuing students’ differences to reducing their differences to levels of performance indexed in assessments such as DIBELS. Debbie stated,

We have to look at your DIBELS scores and you have to go off that. You have the level readers that go with each group but you have to read with them...I get out my scores and look at where they are. So anyone who is intensive would be group one. District wide, that’s how it goes. (Video stimulated interview, April 4th)

To differentiate instruction and to co-teach this lesson, Debbie and Tina divided the students into three groups: a group of students identified as “intensive” who worked with Debbie, another group labeled “strategic” that worked with Tina and a group of students identified as “at benchmark” who worked independently. Debbie’s appropriation of co-teaching and differentiated instruction in the

boundary-zone activity system was mediated by the elements of the school activity system, i.e., district's curriculum and assessment policies and by one of the mandated school artifacts such as the DIBELS. As a result, co-teaching and differentiated instruction were altered from tools that dismantle tracking and value differences into pedagogical artifacts that segregate students into ability-like groups according to DIBELS and fix reading deficits identified by this test.

We found this form of appropriating co-teaching and differentiated instruction in Debbie's four videotaped lessons. For instance, in a lesson that Debbie conducted in September, she divided her students according to their DIBELS scores to differentiate and co-teach:

I was thinking more so like say we have a group of really high kids, because my class I hardly have any strategies now. They're either benchmarked or they're intensive, and the gap is widening. I was thinking why not take those kids that are benchmarked, and you give them a lesson (Video stimulated interview, September 16th)

Second, rather than offering students multiple entry points, this form of differentiating instruction provided students one form of participation (following the script of the Harcourt curriculum) and one access point (when teacher ask students a question). That is, the appropriation of co-teaching and differentiated instruction was mediated by the discursive patterns of the Harcourt curriculum that was part of the curriculum maps. Debbie stated: "We were following Harcourt. [...] You don't get to pick what you do [...] That's what they have for that week (Video stimulated interview, April 4th). Mediated by the Harcourt curriculum, the interactions of Debbie and her students took the following form:

- | | | |
|---|----------------------------|---|
| 1 | <i>Debbie:</i> | Okay. A suffix is at the end of the word. It is at the end of |
| 2 | | the word and also changes the word. [Debbie looks at the |
| 3 | | Harcourt curriculum] First word is "taller". Say it! |
| 4 | Students' Choral response: | Taller! |

- 5 *Debbie:* Stretch it!
- 6 Students' Choral response: TAAAALLLLLLLEEEEEERRRR
- 7 *Debbie :* Count it!
- 8 Students' Choral response: T ALL ER [students count with their fingers each sound]
- 9 *Debbie:* How many fingers is she holding out? [grabbing one of the
- 10 students' hand that had counted the sound with her fingers]
- 11 Students' Choral response: Three.
- 12 *Debbie:* Three, why?
- 13 Students' Choral response: Three letters one sound.
- 14 *Debbie:* And what sound do these three letters make?
- 15 Students' Choral response: ALL
- 16 *Debbie:* What three letters is it?
- 17 Students' Choral response: ALL
- 18 *Debbie:* What three letters is it?
- 19 Students' Choral response: A L L [this time students break ALL into the sound of the
- 20 *Debbie:* three letters]
- 21 A L L good!

During these student-teacher interactions, students needed to respond with the correct answer at the appropriate time. When students made a mistake, Debbie corrected them. For instance, when she asked the students “what three letters is it?” in line 16, the students responded saying the sounds that those letters make (i.e., all) rather than breaking “all” into the sound of each letter. Debbie signaled to the students that they had provided an incorrect answer by repeating the same question (i.e., What three letters is it?) in line 18. What was supposed to be a question was really a judgment about the students’ response. It signaled to them that the sound “all” was not the correct answer.

The students understood this as they changed their answer separating each letter and responding “A L L” in line 19. Thus, rather than using co-teaching and differentiating instruction to provide multiple means to participate and eliminate tracking, these artifacts were used to control and narrow students responses to ensure that they were learning the content embedded in the curriculum maps, which was the objective of the schools’ activity system. In other words, they were used to ensure redistribution of access to academic standards that ignored student diversity.

6. Discussion

This paper contributed to research on teacher learning in partnerships for inclusive education by moving beyond the analysis of individual teachers *or* school communities. Using a CHAT approach, we linked teachers’ situated practice to their institutional contexts. In what follows, we discuss how our findings contribute to CHAT research on (a) school/university partnerships and (b) teacher learning by building upon Levi-Strauss’ (1974) *bricoleur*.

6.1 Examining Notions of Justice As Catalyst for Expansive Learning

In the first part of our analysis, we found that quaternary contradictions emerged when teacher residents needed to practice in their classrooms the pedagogical artifacts taught in the masters’ program. The activity system of Desert Pride Elementary and the masters’ program were saturated with their own practices, rules, and artifacts that were historically developed with different objects in mind (i.e., student learning of academic standards v. teacher learning of certain pedagogical artifacts respectively). The transition from a single object to a dual object brought quaternary contradictions to the front of the partnership work.

Our findings expanded current knowledge on how partnering institutions sustain boundaries between them during teacher development efforts. Max (2010) noted that in partnership work the objects of each institution tend to co-exist within the boundary-zone activity system, creating tensions. This is due, in part, to school and university personnel efforts to sustain institutional

boundaries by interpreting the object of their joint work accordingly to their professional and institutional affiliations (Edwards & Kinti, 2010). In turn, disparate interpretations of the object can materialize in disparate learning opportunities for teachers (Jahreie & Ottesen, 2010). Our findings indicate that the analysis of contradictions in boundary-zone activity systems needs to account for the notions of justice informing the artifacts and object(s) of the activity. Divergent notions of social justice (e.g., redistribution of access to academic standards and recognizing student differences) that informed institutional practices and artifacts can contribute to the maintenance of rigid objects, which in turn become a form of the boundary setting between partnering institutions. This rigidity may be found in many schools that are not meeting their district's accountability criteria and therefore they are under the pressure to increase student achievement as it was the case of Desert Pride Elementary. These schools might be narrowing their object to specific accountability criteria (i.e., access to academic standards and student performance in particular tests) while making it difficult to expand the object of the partnership to: (a) a more dynamic vision in which student *and* teacher learning are interdependent and (b) based on a more encompassing notion of inclusivity informed by justice claims based on redistribution, recognition and representation (Waitoller & Artiles, 2013).

Yet, previous studies also demonstrated boundaries are sites for expansive learning (Engeström, 2008). Expansive learning occurs when partner institutions negotiate the object of their joint activity expanding them into new and more robust objects (Engeström, 2008). Edwards, Lunt, and Stamou (2010), for instance, demonstrated that the negotiation of a joint object involves the redistribution of labor among the partnering communities. In addition, the co-development of boundary artifacts and practices is of crucial importance for the transformation and long-term benefit of the partnering communities (Bourke & McGee, 2012; Max, 2010), including the

expansion of the object of the partnership into learning for the entire partnership community (i.e., teachers, university professors, and students) (Tsui & Law, 2006).

Thus, we recommend that school/university partnerships for inclusive education seize the opportunities to work at the boundaries of activity systems and engage in explicit negotiations about the object of the partnership to work toward expansive learning (Engeström, 2001). This includes interrogating and redefining the notions of justice informing the partnership's activity system. In other words, the emergent object should be to dismantle complex and intersecting forms of exclusion based on misdistribution, misrecognition and misrepresentation. From this perspective, partnerships can offer the opportunities to reconcile competing notions of justice in education and reconstruct artifacts and policies for a more robust materialization of inclusive education. As a result of this object negotiation, new artifacts, rules, and division of labor may emerge that provide access and opportunities to learn for all students.

6.2 Curating Inclusive Educational Experiences

In the second part of our analysis, we zoomed into the case of Debbie and used the notion of curating to explain how quaternary contradictions were addressed. As a museum curator, teacher residents, acting within the constraints and affordances of the boundary-zone activity system, privileged and appropriated certain artifacts over others, curating educational experiences for their students (Waitoller, 2014).

CHAT research on teacher learning generated understandings about how contradictions in school/university partnerships are resolved by teachers or student teachers. Tsui and Law (2006) found that to resolve contradictions in school/university partnerships, teachers act like “chameleons,” (p. 1293), they adapt to the activity system by changing their teaching methods according to who is observing them (e.g., university and school supervisors). Finlay (2011) noticed that the use of artifacts such as reflective journal and teaching strategies varied across activities

according to teachers' interpretation of the object of the activity. External factors such as broader policies regulating schools can affect the negotiation of the object of the activity and the innovation of new cultural artifacts (e.g., pedagogies; Bourke & McGee, 2012).

Curating contributes to CHAT research by building on the notion of teachers as *bricoleur* (Hatton, 1989; Levi Strauss, 1974). The *bricoleur*, according to Levi-Strauss (1974), is a person who uses the means at hand in unexpected ways. As Hatton (1989) stated teachers' work is like that of the *bricoleur* as they "view their already existing set of tools and materials to see what might be useful in the context of some present problem" (Hatton, 1989, p. 75). Their responses are based on both their past experiences and the heterogeneous but finite array of means available to them (Lévi-Strauss, 1974). Wagner (1990) noted that teachers view institutional arrangements (e.g., grouping practices, scheduling of activities, curriculum design) not only as constraints but also as available resources. Teachers tend to be conservative like the *bricoleur*, working within existing constraints (Hatton, 1989). School professional practices are *bricolages* that "arise from the reflexive interactions of different types of knowledge, mediating artifacts, and methods in relation to the social contexts, cultural patterns and social actions and activities that comprise the daily events of the school" (Jenlink, 2006, p. 54).

Curating is an analytical tool that affords a more nuanced analysis of how teachers' *bricolages* are constructed to adapt to a boundary-zone activity system. Curating draws attention to how certain pedagogical artifacts are privileged and appropriated over others and the related implications for the learning experiences afforded to students. In Debbie's case, there was a value judgment involved in privileging—a value judgment that was mediated by curriculum policies, which established a hierarchy of artifacts based on the schools' values and notions of inclusivity and justice. Thus, not only certain pedagogical artifacts were privileged, but the institutional system of authority and values (including notions of justice) in which these artifacts were webbed in.

Privileging is not attributed solely to Debbie nor determined by the rules and artifacts of the boundary-zone activity system. There is a degree of dynamic negotiation involved, in part due to the fact that patterns of privileging are accessible to a conscious reflection as shown in Debbie's case (Wertsch, 1991). This finding is further supported when comparing it to the case of another teacher where cultural responsiveness was privileged due to the distinct dynamics of the activity system she was part of in the same school district (see Waitoller, 2014). Curating, thus, serves to understand an under-theorized relationship in the concept of the bricoleur, namely the relationship between cultural artifacts, power and authority, and human agency.

The concept of curating foregrounds the notions of justice informing activity systems that are guided by an inclusive education agenda. Items used in new bricolages retain residues of their prior meaning that are relevant to the task at hand (Levi Strauss, 1974). Star and Griesemer (1989) pointed out that tensions that emerge in boundary activities can be solved by simplifying the artifacts that create the tensions as well as ignoring or deleting the properties of the artifact that do not suit the context in which is used. The case of Debbie suggests that when pedagogical artifacts are appropriated, they morph into a more idiosyncratic version, and so do the notions of justice informing them, given the unique circumstances of the activity systems in which those artifacts are used. For instance, the appropriation of differentiated instruction and co-teaching was mediated by the use of DIBELS and the Harcourt curriculum. As a result, some key properties of differentiated instruction and co-teaching changed from how they were taught in the masters' program. In addition, the notions of justice informing such artifacts were transformed; co-teaching and differentiated instruction were used to redistribute access to instruction but without recognizing students' differences. Our findings indicate that diluting the notions of justice informing artifacts and practices can serve teachers to solve quaternary contradictions but not necessarily to curate inclusive educational experiences.

In this regard, the distinction between mastery and appropriation deepens our understanding of the learning process that occurs when teachers work as bricoleurs. Mastery of an artifact means knowing how to use it, whereas appropriation means making the artifact one's own, and it is related to the disposition to use the artifact across contexts (Wertsch, 1998). Both mastery and appropriation do not always occur. Teachers can master a pedagogical artifact but do not make it their own, and therefore use it only when they are required to do so. For instance, Debbie understood cultural responsiveness but decided not to use this artifact. In contrast, teachers can appropriate a pedagogical artifact without mastering it. In this latter case, motivation may be high but understanding is unsophisticated (Polman, 2006). In Debbie's case, there was appropriation of co-teaching and differentiated instruction without mastery. That is, Debbie found these two artifacts useful to ensure that all her students learn the content of curriculum maps and used them throughout the year, but her understandings of these artifacts lacked sophistication. Thus, whether a pedagogical artifact is appropriated or mastered (or both) during school/university partnerships is linked to the resolution of quaternary contradictions in boundary-zone activity systems and has implications for how notions of justice informing such artifacts are materialized.

The concept of curating can contribute to better understanding how teachers learn to work with students who experience intersecting forms of exclusion, which is missing in the research on teacher learning for inclusive education (Waitoller & Artiles, 2013). This important multifaceted problems call for complex responses in which teachers question their own practices and create new cultural forms that in turn generate new contradictions and forms of understandings (Daniels et al., 2007). For instance, this study examined not only the appropriation of iconic and historical tools of inclusive education that may resolve exclusions based on misdistribution, but also on the (lack of) appropriation of cultural responsiveness that may resolve exclusion based on the misrecognition of students' differences. This process sheds light on how these pedagogical artifacts are appropriated

while addressing the needs (or not) of students who have diverse abilities and also come from diverse cultural and linguistic backgrounds. The case of Debbie illustrates what can occur when redistributing access to academic standards trumps efforts to recognize and value students' differences: students are identified with deficit labels (e.g., intensive students or low students) in order to redistribute access, which in turn further stigmatizes students (see also Dumas, 2009; El-Haj, 2006). Efforts to include become appropriated as means to exclude.

Because curating is the result of the dialectics of the boundary-zone activity system, school/university partnerships for inclusive education should move beyond supporting teachers to curate educational experiences. All partnership members should engage in a continuous examination of the dynamics of the boundary-zone activity system to facilitate the curation of inclusive educational experiences that not only redistribute access to education, but also recognize students' differences and provide opportunities for students to represent themselves in educational decisions that affect their lives. Thus, while thinking of teachers as bricoleurs contributes to understanding how teachers assemble different tools to respond to the task at hand, thinking of teachers as curators help us think about how teachers and other stakeholders of the partnership need to leverage contradictions to curate more inclusive educational experiences for their students. Curating moves us beyond efforts for inclusive education that focus on teacher learning, situating these efforts within the overlapping boundaries of institutions.

References

- Ainscow, M., Booth, T., & Dyson, A. (2006). Inclusion and the standards agenda: Negotiating policy pressures in England. *International Journal of Inclusive Education*, 10, 295-308.
- Artiles, A. J., Kozleski, E. B., Dorn, S., & Christensen, C. (2006). Learning in inclusive education research: Re-mediating theory and methods with a transformative agenda. *Review of Research in Education*, 30(1), 65-108.
- Artiles, A. J., Kozleski, E. B., & Waitoller, F. R. (Eds.). (2011). *Inclusive education: Examining equity on five continents*. Cambridge, U.S: Harvard Educational Press.
- Avalos, B. (2011). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education*, 27(1), 10-20.
- Avramidis, E., & Kalyva, E. (2007). The influence of teaching experience and professional development on Greek teachers' attitudes towards inclusion. *European Journal of Special Needs Education*, 22(4), 367-389.
- Barnett, B. G., Hall, G. E., Berg, J. H., & Camarena, M. M. (1999). A typology of partnerships for promoting innovation. *Journal of School Leadership*, 9(6), 484-510.
- Bartholomew, S. S., & Sandholtz, J. H. (2009). Competing views of teaching in a school–university partnership. *Teaching and Teacher Education*, 25(1), 155-165.
- Bourke, R., & McGee, A. (2012). The challenge of change: Using activity theory to understand a cultural innovation. *Journal of Educational Change*, 13(2), 217-233.
- Cazden, C. (1988). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann.
- Charmaz, K., & Mitchell, R. G. (2001). Grounded Theory in ethnography. In P. Atkinson, A. Coffey, A. Delamont, J. Lofland & L. Lofland (Eds.), *Handbook of ethnography* (pp. 160-174). Thousand Oaks: CA: Sage.

- Clough, P. (2000). Routes to inclusion. In P. Clough & J. Corbett (Eds.), *Theories of Inclusive Education* (pp. 1-32). London: Sage.
- Cole, M. (1996). *Cultural Psychology: A once and future discipline*. Cambridge, MA: Belknap Harvard.
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241-1299.
- Daniels, H., Leadbetter, J., Warmington, P., Edwards, A., Martin, D., Popova, A., . . . Brown, S. (2007). Learning in and for multi-agency working. *Oxford Review of Education*, 33(4), 521-538.
- Denzin, N. K. (1970). *The research act in sociology*. Chicago: Aldine.
- Dumas, M. J. (2009). Theorizing redistribution and recognition in urban education research. In J. Anyon (Ed.), *Theory and educational research* (pp. 81–102). New York: Routledge.
- Edwards, A., & Kinti, I. (2010). Working relationally at organizational boundaries: Negotiating expertise and identity. In D. Daniels, A. Edwards, Y. Engeström, T. Gallagher, & S. R. Ludvigsen (Eds.), *Activity theory in practice: Promoting learning across boundaries and agencies* (pp. 126-139). London: Routledge.
- Edwards, A., Lunt, I., & Stamou, E. (2010). Inter-professional work and expertise: New roles at the boundaries of schools. *British Educational Research Journal*, 36(1), 27-45.
- El-Haj, A. (2006). *Elusive justice: Wrestling with difference and educational equity in everyday practice*. New York: Routledge
- Engeström, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research*. Helsinki: Orienta-Konsultit Oy.
- Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14(1), 133-156.
- Engeström, Y., & Sannino, A. (2010). Studies of expansive learning: Foundations, findings and future challenges. *Educational Research Review*, 5(1), 1-24.

- Erickson, F., & Schultz, J. (1997). When is a context? Some issues and methods in the analysis of social competence. In C. Cole, Y. Engeström & O. A. Vasquez (Eds.), *Mind culture and activity: Seminar papers from the laboratory of human cognition* (pp. 22-31). Cambridge, UK: Cambridge University Press.
- Finlay, I. (2008). Learning through boundary-crossing: Further education lecturers learning in both the university and workplace. *European Journal of Teacher Education*, 31(1), 73-87.
- Fraser, N. (2009). *Scales of justice: Reimagining political space in a globalizing world*. Cambridge: Polity Press.
- Friend, M., & Cook, L. (2010). *Interactions: Collaboration skills for school professionals* (4th ed.). New York City: Longman.
- Good, R. H., & Kaminski, R. A. (Eds.). (2002). *Dynamic indicators of basic early literacy skills* (6th ed.). Eugene, OR: Institute for the Development of Educational Achievement.
- Harry, B., & Klingner, J. K. (2006). *Why are so many minorities in special education? Understanding race and disability in schools*. New York: Teachers College Press.
- Hatton, E. (1989). Lévi-Strauss's bricolage and theorizing teachers'work. *Anthropology & Education Quarterly*, 20, 74-94.
- Jahreie, C. F., & Ottesen, E. (2010). Construction of boundaries in teacher education: Analyzing student teachers' accounts. *Mind, Culture & Activity*, 17(3), 212-234.
- Jenlink, P. M. (2006). The school leader as bricoleur: Developing scholarly practitioners for our schools. *Education Leadership Review*, 7(2), 54-69.
- Konkola, R. (2001). Developmental process of internship at politechnic and boundary-zone activity as a new model for activity. In T. Tuomi-Gröhn, Y. Engeström & M. Young (Eds.), *Between school and work: New perspectives on transfer and boundary crossing*. (pp. 148-186). Oxford, UK: Pergamon.

- Kozleski, E. B., & Waitoller, F. R. (2010). Teacher learning for inclusive education: Understanding teaching as a cultural and political practice. *International Journal for Inclusive Education*, 14(7), 655-666.
- Levi-Strauss, C. (1974). *The savage mind* (2nd Ed.). London: Weidenfeld and Nicholson.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- Max, C. (2010). Learning-for-teaching across educational boundaries: An activity-theoretical analysis of collaborative internship projects in initial teacher education. In V. Ellis, A. Edwards & P. Smagorinsky (Eds.), *Cultural-historical perspective on teacher education and development* (pp. 212-240). London: Routledge.
- McIntyre, D. (2009). The difficulties of inclusive pedagogy for initial teacher education and some thoughts on the way forward. *Teaching and Teacher Education*, 25(4), 602-608.
- McLaughlin, M. J. (2010). Evolving interpretations of educational equity and students with disabilities. *Exceptional Children*, 76(3), 265-278.
- Nasir, N. S., Rosebery, A. S., Warren, B., & Lee, C. D. (2006). Learning as a cultural process: Achieving equity through diversity. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 489-504). New York: Cambridge University.
- Newman, D., Jenkins, P. D., & Cole, M. (1989). *The construction zone: Working for cognitive change in school*. Cambridge: Cambridge University Press.
- Payls, T. (2008). Purposive sampling. In L. M. Given (Ed.), *The Sage encyclopedia of qualitative methods* (pp. 697-698). Los Angeles: Sage.
- Phillips, S. U. (1972). Participant structures and communicative competence: Warm Springs children in community and classroom. In A. Duranti (Ed.), *Linguistic anthropology: A reader* (pp. 329-342). Malden, MA: Blackwell Publishing Ltd.

- Polman, J. L. (2006). Mastery and appropriation as means to understand the interplay of history learning and identity trajectories. *The Journal of Learning Sciences*, 15(2), 221-259.
- Slee, R. (2010). Political economy, inclusive education, and teacher education. In C. Forlin (Ed.), *Teacher Education for inclusion: Changing Paradigms and innovative approaches* (pp. 13-22). London: Routledge.
- Slee, R. (2011). *The irregular school: Exclusion, schooling, and inclusive education*. Oxford, UK: Routledge.
- Smagorinsky, P., & Coppock, J. (1994). Cultural tools and the classroom context: An exploration of an alternative response to literature. *Written Communication*, 11, 283-310.
- Smagorinsky, P., Gibson, N., Bickmore, S. T., Moore, C. P., & Cook, L. S. (2004). Praxis shock: making the transition from a student-centered university program to the corporate climate of schools. *English Education*, 36(3), 214-245.
- Smagorinsky, P., Jakubiak, C., & Moore, C. (2008). Student teaching in the contact zone : learning to teach amid multiple interests in a vocational English class. *Journal of Teacher Education*, 59(5), 442-454.
- Star, S. L., & Griesemer, J. R. (1989). Institutional ecology, 'translations' and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science*, 19(3), 387-420.
- Strauss, A. L., & Corbin, J. (1990). *Basics of qualitative research: Grounded Theory procedures and techniques*. Newbury Park, CA: Sage.
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd edition). Alexandria, VA: ASCD.
- Tsui, A. B. M., & Law, D. Y. K. (2007). Learning as boundary-crossing in school-university partnership. *Teaching and Teacher Education*, 23(8), 1289-1301.

- Villegas, A. M., & Lucas, T. (2002). Preparing culturally responsive teachers: Rethinking the curriculum. *Journal of Teacher Education*, 53(1), 20-32.
- Wagner, J. (1990). Commentary: Bricolage and teachers' theorizing. *Antropology and Education Quarterly*, 21(2), 78-81.
- Waitoller, F. R. (2014). Becoming a culturally responsive special educator amidst school/university partnerships: Teaching and learning in boundary-zone activity. *Mind, Culture & Activity*, 21(1), 53-73.
- Waitoller, F. R., & Artiles, A. J. (2013). A decade professional development research in inclusive education: A critical review and notes for a research program. *Review of Educational Research*, 83(3), 319-356.
- Waitoller, F. R., & Kozleski, E. B. (2013). Working in boundary practices: Identity development and learning in partnerships for inclusive education. *Teacher and Teaching Education*, 31, 35-45.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, MA: Cambridge University Press
- Wertsch, J. V. (1991). *Voices of the mind: A sociocultural approach to mediated action*. Cambridge, MA: Harvard Educational Press.
- Wertsch, J. V. (1998). *Mind as action*. New York: Oxford University Press.
- Wertsch, J. V., & Rupert, L. J. (1993). The authority of cultural tools in a sociocultural approach to mediated agency. *Cognition & Instruction*, 11(3), 227.

Table 1

Desert Pride Elementary School Demographics

Total # Students	852
% American Indian	3
% Asian/Pacific Islander	2
% Black	17
% Latino	74
% White	4
% English Language Learners	59
% Free and Reduced Lunch	89
% Students on IEPs	7

Table 2

Characteristics of the Study Participants from Desert Pride and Data Collected from Each of Them

Name	Role	Grade	Gender	Interviews	Video-stimulated recall interview	Field observations
Carmen	Principal	n/a	Female	3	N/A	N/A
Kim	Language Coach	n/a	Female	2	N/A	N/A
Liz	Site Professor	n/a	Female	1	N/A	6
Margot	Site Professor	n/a	Female	1	N/A	13
Marlene	Site Professor	n/a	Female	1	N/A	15
Urma	Site Professor	n/a	Female	1	N/A	15
Debbie	Teacher	2	Female	2	4	N/A
Tina	Teacher	2	Female	2	4	N/A
Kelly	Teacher	1	Female	2	4	N/A
Total				15	12	49

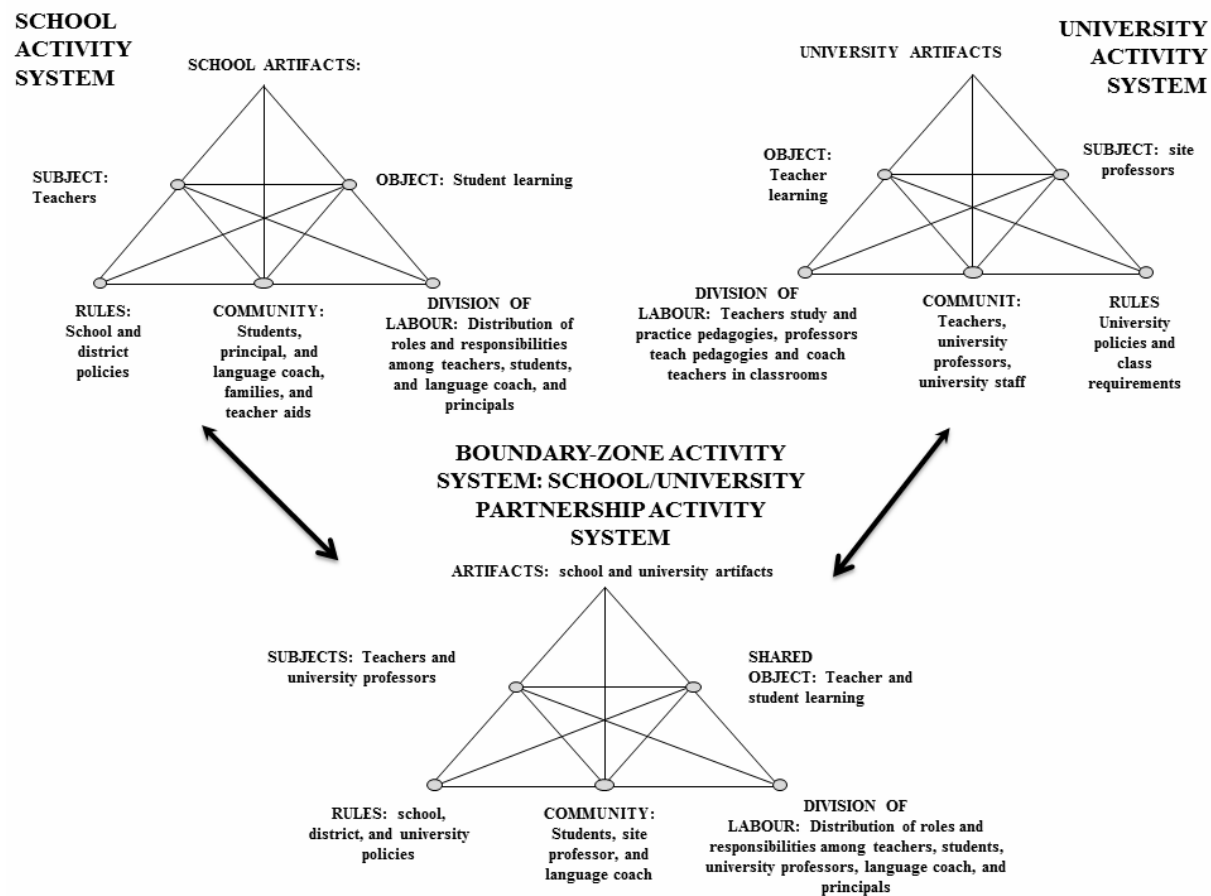


Figure 1. School/university partnership boundary-zone activity system.

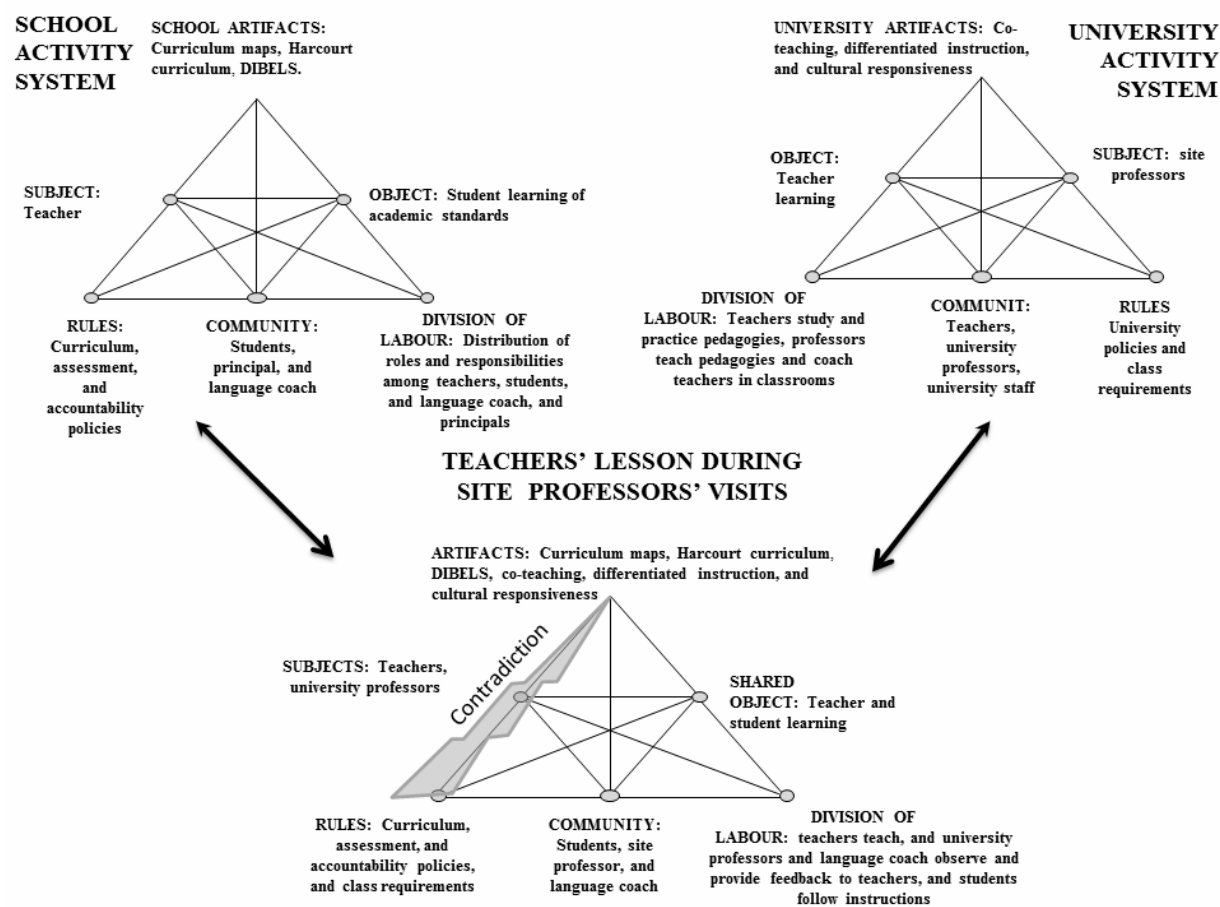


Figure 2. Desert Pride/university partnership boundary-zone activity system.