

# Promoting change within special education teacher preparation programs: A collision of needs

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# Abstract

The United States is experiencing a systemic teacher shortage (Sutcher et al., 2016). This trend is not new to the field of special education, which has been experiencing teacher shortages for decades (Boe, 2006; McLeskey & Billingsley, 2008; U.S. Department of Education, 2020). To address these critical shortages of teachers in the field, states have created Alternative Routes to Licensure (ARL) options, which are commonly seen as non-traditional approaches to gaining teaching credentials. Although the disruptive practice of ARL is already in place, the evidence to support its effectiveness is not. This paper explores the experiences of junior faculty members working as agents of change by disrupting one special education department's ARL program. Emphasis is given to the system supports in place to change the ARL and existing systemic barriers to these changes at the department, college and university levels. Additionally, structures which aided or hindered completing programmatic work from the perspective of the untenured faculty members are also discussed.

Keywords: special education, alternative routes to licensure, activity theory



#### Introduction

The United States has experienced a pervasive teacher shortage in the area of special education for several years. Currently 48 states and the District of Columbia have special education listed as an area of need (United States Department of Education, 2020). Sutcher et al. (2016) cite a projected need of an additional 300,000 teachers per year overall, with special education continuing to be a high shortage area. These shortages are attributed to lower enrollment in teacher preparation programs, increasing student enrollment in preschool through 12th grade (PK-12) schools, teacher attrition, and higher class sizes (Sutcher et al., 2016). Moreover, teachers report dissatisfaction with their jobs, including being discontented with assessment and accountability measures, support for students, administration, and overall dissatisfaction with teaching as a career as reasons for attrition, and many are likely to leave in the first three years of teaching (Carver-Thomas & Darling-Hammond, 2017; Johnson et al., 2012; Redding & Henry, 2019; Sutcher et al., 2016).

# **Alternative Route to Licensure Programs**

States and school districts have sought to address the chronic teacher shortage, especially in special education, by instituting Alternative Route to Licensure (ARL) programs (also called alternative pathways and other variants; Quigney, 2010). Although ARL programs have been in existence since the 1990s, they have expanded exponentially in recent years, and now nearly every state in the United States and Washington D.C. has at least one ARL option for teacher candidates (Feistritzer, 2011; Myers et al., 2020). Myers and colleagues (2020) conducted a systematic review of states' ARL policies and programs and found that 48 states had at least one ARL policy, and most had three ARL policies. These policies range widely in terms of requirements and length, from intensive residency programs that last up to five years to test-only options in which people meet an examination requirement to be eligible for a teaching credential. Myers et al. identified 174 policies in total across the 48 states and categorized them into eight mutually exclusive conceptual models. The most common, representing 55% of the total policies, was the Internship model in which schools hire people without teaching credentials to work as classroom teachers full-time while they also pursue full certification in a teacher preparation program. The Internship model best describes the ARL program under investigation in this paper. The ideas discussed below may not apply to ARL programs that fit other models.

#### **ARL Programs as Disruptive Practices**

Disruption, as defined by Blin and Munro (2008), is "a serious transformation or alteration of the structure of teaching and learning activities taking place in formal education" (p. 476). ARL programs are potentially disruptive to traditional teacher education because of the contexts in which they occur. In traditional preparation programs, pre-service teachers engage in field experiences in which they work in a mentor teacher's classroom, under the mentor's supervision. In ARL programs, teacher candidates' required field experiences typically take place in their own classrooms in which they may or may not be



supported by a mentor teacher, depending on the program and school or district. In fact, Myers et al. (2020) found that only 16 of the 95 ARL Internship models (17%) "explicitly required participants to participate in a mentorship program as part of their training requirements" (p. 7). To be effective, ARL programs need to consider how to better support candidates in their classrooms and leverage resources provided by schools. The fact that ARL candidates are working full-time in their own classrooms makes this difficult because it requires supervisors who are university employees to travel to schools or for staff at the schools to take time to go into the ARL candidates' classrooms.

Even with mentorship and administrative support, novice teachers struggle to manage the complexities of classrooms and report high levels of stress (Prilleltensky et al., 2016). In special education, the problems faced by novice teachers are compounded by the high workloads imposed by legally-mandated paperwork and role ambiguity (Bettini et al., 2017). A special education teacher is often the only person in their school serving in a particular role or setting (e.g., self-contained classrooms for students with Autism Spectrum Disorder), meaning that their mentors either work in different schools or in different roles (Mathews et al., 2017), and thus novice special educators may not have anyone who can model their responsibilities or explain their role in the building. Novice teachers who are also ARL candidates have all the stresses associated with beginning teachers, complicated by the fact that they are, essentially, learning as they go through on-the-job training. These factors can lead to increased stress and, thus, feelings of unpreparedness in their first years as teachers (Kee, 2012). However, if we shift thinking, the reality that ARL candidates are teaching full-time at the same time they are taking coursework in education has potential benefits as well.

When ARL preparation programs embrace their potentially disruptive power, ARL candidates' positionality as full-time teachers is also a source of largely untapped strength that is not present in traditional teacher preparation models. Coursework can be directly and immediately connected to classrooms, giving candidates a chance to put strategies and practices in place immediately and receive support as they work to perfect them. This has two major potential benefits. First, it could serve to reduce the ongoing research-to-practice gap (McLeskey & Billingsley 2008). Although there are indications that the situation may be improving, special education teachers largely are not observed to use evidence-based instructional practices in classrooms (e.g., Cook & Odom, 2013; McKenna et al., 2015; Walker & Stevens, 2017). However, if classroom instruction is tied intricately into their teacher preparation, teacher educators could provide support as novice teachers implement research-based practices, thereby increasing teacher candidates' confidence in and likelihood of using those practices. Second, rather than operating as separate entities, ARL programs could envision themselves as not only teacher preparation programs but also induction support programs. Traditional programs are not known to offer mentorship and support to credentialed graduates. They could use teacher educators or other staff as inschool mentors, explicitly and intensively supporting candidates' development as teachers during their formative early years, all of which improve practice (e.g., Mathews et al., 2017; Ronfeldt & McQueen, 2017; Shockley et al., 2013).



Another potential disruption from the norm that ARL programs cause is their ability to positively impact the diversity of the teaching force. The lack of diversity among teachers is a subject of intense scrutiny and criticism, and an issue not well/consistently addressed in traditional teacher preparation programs (Boser, 2014; Haddix, 2017). Statistics show the vast majority of special education teachers are white women; however, the students they teach are increasingly more diverse in terms of race and ethnicity (Rosenberg et al., 2007). Despite the fact that recent research demonstrates positive impacts on student achievement and engagement when students have teachers who share demographics/cultural backgrounds and other characteristics (e.g., Egalite et al., 2015; Lindsay & Hart, 2017), traditional teacher education programs struggle to recruit and retain diverse teacher candidates for many reasons (Bireda & Chait, 2011; Sleeter, 2017). ARL teachers and teacher candidates, while still not as diverse as the student population, tend to be significantly more diverse than their traditionally prepared peers in terms of race, ethnicity, age, gender, and background (National Center for Education Statistics [NCES], 2018). Research on the reasons for this is limited, but Scott (2019) found that, for example, funding, recruitment efforts, and personal connections were influential in Black males' decision to enter a special education ARL program. Given that ARL teachers are disproportionately employed in schools with a higher than average percentage of diverse students (NCES, 2018), the ability of ARL programs to recruit and retain diverse teachers has potentially long-ranging benefits for the achievement of traditionally underserved students.

Although these are notable ways in which ARL programs disrupt the traditional pathways of credentialing teachers, we note several challenges that limit the potential of ARL programs to truly strengthen the pipeline of diverse candidates into the teaching profession. We believe one reason is that ARL programs are run through institutions of higher education are often designed and implemented very similarly to the existing traditional teacher preparation program(s). Essentially, traditional teacher education systems have sought to "work-around" ARL policies, by simply adapting them to fit within existing models rather than viewing them as able and necessary to disrupt and transform the fundamental structures of the systems themselves (Roth & Tobin, 2002). Due to the complex nature of teacher education programs, we view activity theory (Blakhurst, 2008; Engeström, 2000; 2001; Sannino et al., 2009) as a useful framework for conceptualizing the interconnected elements at play within those programs. In this paper, we use activity theory to focus not on the ARL program itself but on the activities of two junior tenure-track faculty members who are participating in an attempted restructuring of one ARL program that employs an internship model (Myers et al., 2020). As we engaged in this disruptive work as junior faculty members, we repeatedly asked ourselves, "Should we be engaged in programmatic work at this point in our careers?"

# **Theoretical Framework: Activity Theory**

Activity theory provides a valuable lens through which to examine teacher education programs, as it allows for a non-reductionist examination of dynamic systems that are driven



by a common need that is complex, constantly changing, and with the potential for transformation (Engeström, 2000). Additionally, activity theory's focus is squarely on implications of the activity on practice, which is essential for teacher education programs given that their purpose is to produce teachers who will use effective practice in classrooms (Roth & Tobin, 2002). Activity theory explores the ways in which subjects, tools and artifacts, rules, community, and division of labor interact as the activity works on a given object, with the goal of creating a desired outcome.

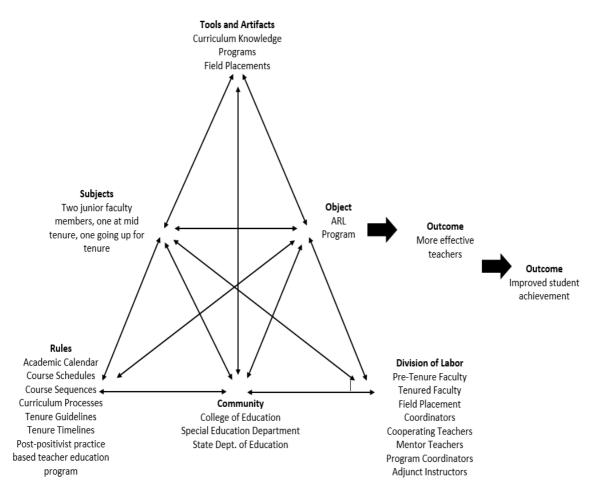
The history and background of activity theory are important to understanding the theory's assumptions and positioning. We will not endeavor to summarize that history here because it has been written about extensively and effectively elsewhere (see Engeström, 2001; Sannino et al., 2009). Rather, we focus our discussion on the elements of the specific activity in which we are engaged (see Figure 1). Activity theory describes human interaction based around the notion of "activities that are oriented toward objects" (Sannino et al., 2009, pp. 2-3). We as junior faculty members are the *subjects* "whose agency is chosen as the point of view in the analysis" (Roth & Tobin, 2002, p. 113). The *object* on which the activity and our action focus is the special education ARL program run by our institution, and our desired *outcomes* are twofold: (a) to train effective special educators, (b) to improve the achievement of students with disabilities and (c) to retain diverse teacher candidates. Our (i.e., the subjects') impacts on the object are mediated by the other elements within the activity system. *Tools and artifacts*, according to Engeström (1990), can be divided into categories of what (describing objects), how (processes and procedures), why (topography and behavior) and where to (future outcomes).

In Figure 1, the tools and artifacts include course curriculum, pedagogical knowledge, and field experiences. The *community* describes the individuals or groups who share the object with the subjects, in this case the other special education faculty, the state department of education, and the larger college of education. *Rules* include the guidelines, regulations and norms within the communities. In the current activity, these include structured regulations such as the state's requirements for ARL licensure, the process of curriculum approval within the college of education, and the department guidelines surrounding granting of tenure. Rules also include less explicit but still powerful community norms, such as tenured faculty's expectations around what the work of pre-tenure faculty should look like. Finally, *division of labor* represents the responsibilities of the subjects' job roles as well as the horizontal relationships with members of the community who are at the same rank or status of the subjects and vertical relationships in which members of the community differ in terms of power or status (Ekundayo et al., 2012).



# **Figure 1** *ARL Redesign within Activity Theory Framework*

Activity: Rethinking and Redesigning an ARL program housed within a Department of Special Education



Contradictions are central to the activity theory framework (Engeström, 2001). Contradictions are "historically accumulating structural tensions" (Ekundayo et al., 2012, p. 2) that interrupt workflow but serve as agents of change and innovation. The central external contradiction impacting this activity system was the emergence of ARL options, which stimulated a re-evaluation of business-as-usual in teacher education. Of specific relevance to the activity system in which we are the subjects, our recognition of the misalignment between the promise of ARL as a disruptive force and the ways in which the ARL program was functioning was a central contradiction. For example, we noted a lack of congruence between coursework and field experiences, mitigating the potential of the program to disrupt the research-to-practice gap, as well as a lack of culturally responsive pedagogy and structures within the program, hindering its ability to recruit and retain diverse teacher candidates.



# Subject Reflections of ARL Redesign

The activity at the center of this project is an effort to rethink and redesign the special education ARL program; in our roles as tenure-track faculty, we teach courses and advise students in the ARL program. Describing the details of the redesign, however, is not the central purpose of this paper. Here, we discuss our experiences as junior faculty involved in this process. In embarking on this redesign, we partnered with a newly-tenured faculty member, who was also the special education program coordinator. One of the authors had engaged with this colleague in conversations about her impressions that the current program was not adequately meeting the unique needs of our ARL candidates. We employed a design-based research frame to allow for an iterative process involving rotating phases of altering aspects of the program, collecting and analyzing data, and adjusting changes based on the data analysis. Although still in the process of redesign, we have, up to this point, made curricular adjustments to the initial training courses and collected data on student perceptions of their learning and their needs in the program. As we implemented the initial changes to our ARL program, we found there were disturbances or tensions across all components in our activity theory model that interfered with the intent of the activity and which functioned differently for us as pre-tenure faculty than they did for our tenured colleague.

#### **Junior Faculty as Agents of Disruptive Practices**

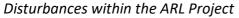
Participating in work that has the potential to lead to greater impact and change in teacher preparation is why we both pursued a career in higher education. We are fortunate in that our program and college support collaborative work. Through our program coordinator, we have been able to be flexible within the content and structures of these initial ARL courses. Moreover, we have received encouragement from our college level administration to do so, which alleviated some of the vulnerability we felt exploring these avenues of change. Even though flexibility and freedom were present, engaging in this program work presented challenges.

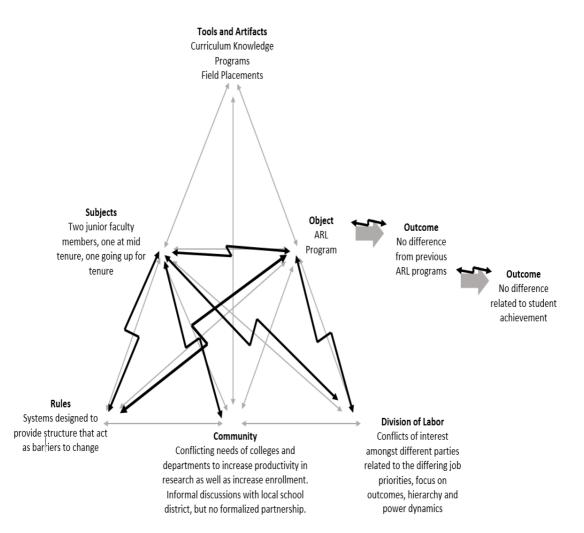
For the purpose of this paper, we chose to highlight the disturbances between subjects, rules, division of labor, and the object, noting that all of these interactions are happening within communities. We found these four to be the most impactful disturbances for us as we engaged in programmatic change (see Figure 2). Along with a discussion around the structures found in activity theory, we also address the sensual and emotional components that impacted the actions we took within the activity of disrupting our ARL program. Roth (2008) describes these sensual components as "agentive dimensions" (p. 53), which include emotions, identity, and ethico-moral aspects of the activity. We believe as Roth does, that "only by including these needs, emotions, and feelings do we capture the activity system as a whole, that is, as intended by cultural-historical activity theory since its inception" (p. 70). Therefore, as we discuss the disturbances which impacted our work, we also examine the accompanying sensual components that sprang from or complicated the



impact of those disturbances. The following section describes the disturbances and contradictions we encountered as junior faculty members engaging in a disruptive practice.

# Figure 2





#### Rules

University systems, licensure requirements, and departmental norms are all sources of contradictions that created disturbances. The two main disturbances that noticeably impacted our work on this project were those related to logistics, norms and expectations surrounding tenure.



#### Logistics

In attempting to creatively redesign an existing program within a system of higher education, we found many structures in place at the college and system levels that disturbed the central activity. For example, we were constrained in our ability to creatively restructure classes by the rigidity of the academic calendar, both at the university level and in the local school district, as well as policies related to course scheduling. Additionally, we had to navigate a number of complex processes, including the curriculum approval process for changes to courses and the Institutional Review Board (IRB) process for permission to collect data throughout the project. As new faculty, we did not always have the required knowledge of how to navigate those systems or the connections with key personnel who could provide guidance. This required us to rely heavily on our tenured colleague's experience and his position as program coordinator to access and navigate systems. Although the redesign endeavor was initially his suggestion, the intention was for it to be fully collaborative. However, because of our need to rely on his connections and status as a more senior professor, we stepped back and did not take ownership over the process. Both of us felt insecure about our position in the group; although we felt confident making suggestions, we were not comfortable attempting to drive the overall direction of the activity. Importantly, this was not something that was explicit in the group's interactions; it came out when we reflected on the process at the end of the first semester of the project. Together, we identified this insecurity as an unstated and (at the time) unexamined emotion we felt that guided our individual decisions and actions.

#### Norms and Expectations Related to Tenure

The pressure to publish as part of the tenure process is one of the largest sources of contradiction that created a possible moral hazard. Even in the most supportive, creative, and innovative environments, there are several historical and systemic rules and norms in place deterring programmatic work by junior faculty. First, the need to balance time and effort spent on teaching versus research is a difficult one to navigate for many junior faculty members across fields (Eddy & Gaston-Gayles, 2008). Given our passion for education and teacher preparation, we have felt that tension strongly, both within this specific activity and more generally. We are both long-time educators; for most of our professional lives, teaching has been the driving force of our careers and the activity which we have spent our adult lives striving to study and improve.

Upon entering the academy, the message shifted, and we were told, both implicitly and explicitly, that teaching was no longer the most important part of our jobs. Instead, writing and research were prioritized over teaching and related activities, such as program development. This contradicted our motivation for entering the field and our natural inclinations. It also ran counter to our assigned workloads, as we were required to spend time preparing new courses, often multiple semesters in a row. On many occasions, the second author was told by respected and senior faculty members at different institutions to "care less" about her teaching because of the need to publish in the early years of being on faculty. The struggle to reconcile those messages with our passion for teaching led both of



us to experience uncertainty in our initial decision to enter tenure-track faculty lines. We have both ultimately decided to stay in these lines because we see the potential of them, but it was a constant negotiation between our personal desires and motivations and the external pressure to work in opposition to those desires. To be an agent of disruption, we had to find a balance between our passion and the demands of being a junior faculty member.

Second, the timeline for tenure is clearly delineated at most institutions of higher education and drives guidance junior faculty receive including the types of research a junior faculty member should produce, where the research should be published, and to some extent, what line of inquiry should be pursued. One recommendation we often received was to find ways to link teaching and research -- to collect data and publish about our work as teacher educators. However, the fixed tenure clock limits the types of research in which junior faculty can engage. Lengthy research projects delay a publishable product and the time allotted to produce publishable products is limited. Programmatic change takes time in itself, and assessing the results of changes takes even longer, making it difficult to reconcile the decision to engage in this work with the desire to secure tenure.

In practice, junior faculty are often encouraged to first get tenure, then do the "big work" related to program development and change. We have each individually received advice from senior faculty that we should not engage in work like this so early in our careers. The message that program development is not the most essential part of our jobs may be another reason we allowed our tenured colleague to take the lead on this ARL redesign: we felt pressure from our other colleagues to not prioritize programmatic work in favor of writing and research. When beginning the ARL redesign activity, our focus was prioritized equally on the teaching and research aspects of the project. Over time it became abundantly clear that the commitment was significantly greater than any of us anticipated. As a result, our tenured colleague helped focus our direction towards the research components, which was consistent with the messages about what our priorities should be. Other than some initial brainstorming and periodic check-ins of the student data, we did not focus a large part of the effort on the aspects of the project related to our instruction or curriculum. This reduced our ability to explore innovations to the program itself, which caused us to struggle with our commitment to the activity as a whole. To combat these constraints, we used proactive strategies of setting specific target dates, selecting possible publication outlets and dividing lead authors on each aspect of the project (e.g., program design, research to practice), but we still felt in this activity that the almost sole emphasis on research in our team discussions limited our ability to engage in creative problem-solving and true innovation in program and course components.

#### **Division of Labor**

In addition to the contradictions created by rules, there were others related to the division of labor. The hierarchy of the university system along with program norms resulted in several disturbances. Upon reflection, these disturbances were found mainly in the



relationships that cut across vertical systems (i.e., across status or rank). The following is a discussion of these conflicts.

There is a tenuous relationship when junior faculty engage in work that could potentially be seen as criticizing the previous work of tenured faculty members. Tenured faculty within a department play a critical role in a junior faculty member's career because they directly evaluate each junior faculty member's body of work and determine whether they should receive tenure. Even though the system is supposed to promote the creation of new knowledge, this hierarchy can create perceived barriers to creative work such as program improvement when tenured faculty are opposed to or even ambivalent towards change. When engaging in an activity as wide-ranging as program redesign, it is essential that faculty across ranks collaborate as peers; however, due to the evaluative role tenured faculty play, junior faculty may not have any true power for change (e.g., Cowin et al., 2012). In essence, for a junior faculty member to move forward in their career, their work must be approved by the tenured faculty community. In our work on the ARL program redesign, we experienced this dynamic in action. Our tenured colleague was extremely supportive of our involvement and did not in any way imply that his rank put him "in charge." Other faculty, as well, were supportive of the goals of the project and explicitly in favor of some of the major goals of the project. However, as we worked through the systems and ideas, we found ourselves questioning the extent to which we can offer suggestions for changing existing systems (i.e., disrupting the norms).

Some tenured colleagues in our department were involved in the design of the current program, and there is a fear they will take suggestions as criticisms of their work, even if that is not the intention. Despite statements of outward support, we do not feel completely safe to suggest innovative or broad-ranging changes. It is important to note that we have not encountered explicit resistance. Rather, our uncertainty comes more from a "hidden curriculum" consisting of comments made by faculty in program meetings, side conversations, and other reactions when changes are proposed. This feeling of vulnerability has been particularly present as we write this manuscript. The fact that we are explicitly writing about these contradictions and disturbances has been a source of anxiety for both of us; we worry it could negatively impact our career trajectory if our colleagues view these statements as criticisms or complaints.

#### Discussion

Throughout this paper we presented activity theory as a model through which to examine the ability of junior faculty to engage in critical program redesign within the complex system of higher education. We continue to reflect on the ultimate question, "Should we be engaged in programmatic work at this point in our careers?" The contradictions we face are not unique to us; they line up with what others have found when examining teacher education through an activity theory lens (Ellis et al., 2014). Ultimately, activity theory allows us to utilize a framework for examining our work, rather than being limited to a mentalist paradigm (McNicholl & Blake, 2013). Through the activity theory lens,



we have provided a glimpse into the complex relationship between the authors as junior faculty members and our ARL program. The disruptions created by our scope of work, dual relationships with colleagues, and systems rules about tenure create ethical dilemmas and sometimes moral hazards that must be addressed for us to continue this work. The requirements for tenure and scope of work will continue to interfere with junior faculty's ability to engage in programmatic redesign unless colleges of education can begin to take a more systematic approach in leveraging their positions in higher education.

As others have identified, the higher education system does not always recognize and support the unique nature of the work accomplished by faculty members (Ellis et al., 2011; McNicholl & Blake, 2013). The contradictions between the needs of a well-established institution and the work needed to transform the field of education can lead to disruptions. By not recognizing the tensions that are inherent within the scope of work for teacher educators, we place all faculty, but especially junior faculty, in the position of engaging in work that is limited in scope. To truly transform the field of education, colleges of education may need to reposition ourselves not only within the institution of higher education, but also within our community partners (Ellis et al., 2014; McNicholl & Blake, 2013).

In spite of the aforementioned contradictions, we feel as though we are in a unique position to continue to revise the ARL program. Moving forward, we plan further curricular changes – creating a cohort-based program with a singular point of admission rather than rolling admission points and adding support to the field experience components to strengthen the connection between field- and course-work. As we collect and utilize student data to inform future changes, we intend to also collect additional evidence of teacher effectiveness through classroom observations as well as measures of student achievement related to engagement, academic performance, or behavior metrics.

Continuing in this work does not come without a sense of fear that we may lose valuable time which could be spent on work that produces a quicker outcome, trepidation that we may be offending the very people who will be making decisions about the quality of our work and a real sense that our current workload will not accommodate the time we need to accomplish our goals. The contradictions within the system create barriers which must be overcome before we, as junior faculty members can do what, in essence, we were hired to do, which is to become agents of disruption through critical examination and the creation of new knowledge.

Activity theory helps to remind us that when we work to resolve these contradictions, true transformation can occur. The activity theory model suggests that colleges of education must encourage and even prioritize programmatic work of faculty to have a significant impact on the field. This can only happen if we acknowledge the contradictions and disturbances in our system that prevent this work from being accomplished on a greater scale by all faculty members. To engage all our faculty in all levels of critical work, we need to make sure we address contradictions and make our system for advancement in higher education more responsive to the needs of the field.

Much of what we have stated may be self-evident to those who have been in the field for longer periods than us, but we find that conversations like this one often occur in



closed circles with limited scope for change. Our hope is that by sharing our experiences, we can encourage more conversations that promote systems thinking and systematic change amongst teacher education faculty at institutions of higher education. Our fear is that in waiting to do the programmatic work necessary to invoke real change, we, as junior faculty members, risk indoctrination into a system whereby we navigate the contradictions and develop a research trajectory that takes us away from this line of inquiry and, thereby abandon or never fully engage in work with the potential to be a truly disruptive practice.



# References

- Bireda, S., & Chait, R. (2011, November). *Increasing teacher diversity: Strategies to improve the teacher workforce.* Center for American Progress. <u>https://files.eric.ed.gov/fulltext/ED535654.pdf</u>
- Bettini, E., Jones, N., Brownell, M., Conroy, M., Park, Y., Leite, W., Crockett, J., & Benedict, A. (2017). Workload manageability among novice special and general educators:
  Relationships with emotional exhaustion and career intentions. *Remedial and Special Education*, 38(4), 246-256. <u>https://doi.org/10.1177/0741932517708327</u>
- Blin, F., & Munro, M. (2008). Why hasn't technology disrupted academics' teaching practices? Understanding resistance to change through the lens of activity theory. *Computers & Education*, 50(2), 475-490. https://doi.org/10.1016/j.compedu.2007.09.017
- Boe, (2006). The long-term trends in the national demand, supply and shortage of special education teachers. *The Journal of Special Education*, 40(3), 138-150. https://doi.org/10.1177/0022466906040003020
- Boser, U. (2014). *Teacher diversity revisited: A new state-by-state analysis*. Center for American Progress. <u>https://cdn.americanprogress.org/wp-</u> <u>content/uploads/2014/05/TeacherDiversity.pdf</u>
- Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it.* Learning Policy Institute. <u>https://learningpolicyinstitute.org/sites/default/files/product-files/Teacher\_Turnover\_REPORT.pdf</u>
- Cook, B. G., & Odom, S. L. (2013). Evidence-based practices and implementation science in special education. *Exceptional Children*, 79(2), 135–144. https://doi.org/10.1177/001440291307900201
- Cowin, K., Cohen, L., Ciechanowski, K., & Orozco, R. (2012). Portraits of mentor-junior faculty relationships: From power dynamics to collaboration. *The Journal of Education*, *192*(1), 37-47.
- Eddy, P. L., & Gaston-Gayles, J. L. (2008). New faculty on the block: Issues of stress and support. *Journal of Human Behavior in the Social Environment, 17*(1-2), 89-106. https://doi.org/10.1080/10911350802168878
- Egalite, A. J., Kisida, B., & Winters, M. A. (2015). Representation in the classroom: The effect of own-race teachers on student achievement. *Economics of Education Review*, 45, 44-52. https://doi.org/10.1016/j.econedurev.2015.01.007
- Ekundayo, S., Wang, W., & Andrade, A. D. (2012). The use of activity theory and its principle of contradictions to identify and analyse systemic tensions: The case of a Virtual University and its partners. CONF-IRM 2012 Proceedings, 33. International Conference on Information Resources Management. <u>http://aisel.aisnet.org/confirm2012/33</u>



- Ellis, V., McNicholl, J., Blake, A., & McNally, J. (2014). Academic work and proletarianisation: A study of higher education-based teacher educators. *Teaching and Teacher Education, 40*, 33-43. <u>https://doi.org/10.1016/j.tate.2014.01.008</u>
- Engeström, Y. (1990). *Learning, working and imagining: Twelve studies in activity theory.* Orienta-Konsultit.
- Engeström, Y. (2000). Activity theory as a framework for analyzing and redesigning work. *Ergonomics*, 43(7), 960-974. https://doi.org/10.1080/001401300409143.
- Engeström, Y. (2001). Expansive learning at work: Toward an activity theoretical representation. *Journal of Education and Work, 14*(1), 133-156. <u>https://doi.org/10.1080/13639080020028747</u>
- Feistritzer, C. E. (2011). *Profile of teachers in the U. S. 2011.* National Center for Education Information. https://www.edweek.org/media/pot2011final-blog.pdf
- Haddix, M. M. (2017). Diversifying teaching and teacher education: Beyond rhetoric and toward real change. *Journal of Literacy Research, 49*(1), 141-149. https://doi.org/10.1177/1086296X16683422
- Johnson, S. M., Kraft, M. A., & Papay, J. P. (2012). How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement. *Teachers College Record*, *114*(10), 1–39. <u>https://doi.org/10.3102/0013189X17735813</u>
- Kee, A. N. (2012). Feelings of preparedness among alternatively certified teachers: What is the role of program features? *Journal of Teacher Education*, 63(1), 23-28. <u>https://doi.org/10.1177/0022487111421933</u>
- Lindsay, C. A., & Hart, C. M. D. (2017). Exposure to same-race teachers and student disciplinary outcomes for Black students in North Carolina. *Educational Evaluation and Policy Analysis, 39*(3), 485-510. <u>https://doi.org/10.3102/0162373717693109</u>
- Mathews, H. M., Rodgers, W. J., & Youngs, P. (2017). Sense-making for beginning special educators: A systematic mixed methods review. *Teaching and Teacher Education, 67*, 23-36. https://doi.org/10.1016/j.tate.2017.05.007
- McLeskey, J., & Billingsley, B. (2008). How does the quality and stability of the teaching force influence the research-to-practice gap? *Remedial and Special Education, 29*(5), 293-305. <u>https://doi.org/10.1177/0741932507312010</u>
- McKenna, J. W., Shin, M., & Ciullo, S. (2015). Evaluating reading and mathematics instruction for students with learning disabilities: A synthesis of observation research. *Learning Disability Quarterly, 38*(4), 195-207. <u>https://doi.org/10.1177/0731948714564576</u>
- McNicholl, J., & Blake, A. (2013). Transforming teacher education, an activity theory analysis. Journal of Education for Teaching, 39(3), 281-300. https://doi.org/10.1080/02607476.2013.799846
- Myers, J. A., Gilbert, K., & Sindelar, P. (2020). Does Alternative Route preparation meet the requirements of IDEA Assurance 14? A policy analysis. *Teacher Education and Special Education* [Advance online publication]. <u>https://doi.org/10.1177/0888406420912374</u>
- National Center for Education Statistics. (2018, May). *Characteristics of public school teachers who completed alternative route to certification programs.* U. S.



Department of Education. Retrieved March 14, 2020, from https://nces.ed.gov/programs/coe/indicator\_tlc.asp

- Prilleltensky, I., Neff, M., & Bessell, A. (2016). Teacher stress: What it is, why it's important, how it can be alleviated. *Theory Into Practice*, *55*(2), 104-111. https://doi.org/10.1080/00405841.2016.1148986
- Quigney, T. A. (2010). Alternative teaching certification in special education: Rationale, concerns, and recommendations. *Issues in Teacher Education, 19*(1), 41-58. https://files.eric.ed.gov/fulltext/EJ887294.pdf
- Redding, C., & Henry, G. T. (2019). Leaving school early: An examination of novice teachers' within- and end-of-year turnover. *American Educational Research Journal*, 56(1), 204–236. <u>https://doi.org/10.3102/0002831218790542</u>
- Ronfeldt, M., & McQueen, K. (2017). Does new teacher induction really improve retention? Journal of Teacher Education, 68(4), 394–410. https://doi.org/10.1177/0022487117702583
- Roth, W.-M., & Tobin, K. (2002). Redesigning an "urban" teacher education program: An activity theory perspective. *Mind, Culture, and Activity, (9)*2, 108-131. <u>https://doi.org/10.1207/S15327884MCA0902\_03</u>
- Rosenberg, M. S., Boyer, K. L., Sindelar, P. T., & Misra, S. K. (2007). Alternative route programs for certification in special education: Program infrastructure, institutional delivery, and participant characteristics. *Exceptional Children*, 73(2), 224-241. https://doi.org/10.1177/001440290707300206
- Sannino, A., Daniels, H., & Gutiérrez, K. D. (2009). Activity theory between historical engagement and future-making practice. In A. Sannino, H. Daniels, & K. D. Gutiérrez (Eds.). *Learning and expanding with activity theory* (pp. 1-15). Cambridge University Press.
- Scott, L. A. (2019). Experience of Black male special education teachers: Are alternative licensure programs the desired route for recruitment and preparation? *Education and Urban Society, 51*(3), 332-350. <u>https://doi.org/10.1177/0013124517719971</u>
- Shockley, R., Watlington, E., & Felsher, R. (2013). Out on a limb: The efficacy of teacher induction in secondary schools. NASSP Bulletin, 97(4), 350–377. https://doi.org/10.1177/0192636513510595
- Sleeter, C. (2017). Critical Race Theory and the Whiteness of teacher education. *Urban Education, 52*(2), 155-169. <u>https://doi.org/10.1177/0042085916668957</u>
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). A coming crisis in teaching? Teacher supply, demand, and shortages in the U. S. Learning Policy Institute. https://learningpolicyinstitute.org/product/coming-crisis-teaching-brief
- United States Department of Education. (2020). *Teacher shortage areas.* United States Department of Education. <u>https://tsa.ed.gov/#/reports</u>
- Walker, M., & Stevens, E. A. (2017). Reading instruction for students with learning disabilities: An observation study synthesis (1980-2014). *Learning Disability Quarterly*, 40(1), 17-28. <u>https://doi.org/10.1177/0731948716633868</u>