

Empowering Student Growth & Future Teachers Through a Teacher Apprenticeship Program

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Teaching Context

Lindblom Math and Science Academy is a selective enrollment high school in Chicago's West Englewood neighborhood. The student body includes 1,355 students in grades 7 through 12. Since it is a selective enrollment school, the students meet testing requirements to attend and come from a variety of neighborhoods across the city. Roughly 62% of the students are from low-income backgrounds, and the student demographics include 70% African American, 25% Latinx, and 5% other races.

The Lindblom Teacher Apprentice Program was started in 2013 by Lindblom teacher Molly Myers, and was inspired by a similar program at Science Leadership Academy in Philadelphia. Molly had two main goals when she created the program. The first was rooted in the desire to provide our students with a leadership role within the school that could increase student voice and autonomy in our classrooms. The second was related to the lack of diversity in the CPS teaching force, which is a trend that also exists on a national level and will be discussed further in the literature review. Molly wondered if our students might be more likely to consider a career in teaching if they had the opportunity to experience it through a high school apprenticeship.

The LTA Program has grown from 9 students in the initial 2013 - 2014 cohort to 112 LTAs in the 2019 - 2020 cohort. After applying, being interviewed by current LTAs, and being accepted to the program, students are paired with a mentor teacher and class for the following school year. The classrooms they are placed in range from 7th grade to 12th grade and involve seven departments in the school: English, Social Science, Science, Special Education, Fine Arts, Math, and World Language. Molly chose the word "apprentice" very carefully; she imagined students would be apprentices who would engage in our work *alongside* us, rather than be assistants to our work. As a Lindblom Teacher Apprentice, or LTA, students observe the classroom and their mentor, engage with and support students, and eventually plan and teach lessons. The amount of autonomy and responsibility LTAs take on within the classroom tends to vary and depends on the specific course as well as on the mentor-LTA relationship. However, it is the goal that every LTA will plan, teach, and reflect on a full 100-minute lesson at some point during the year. Some LTAs end up doing much more planning and teaching than this, and they are also involved in the class in a variety of other ways.

After being a mentor in the program for the first four years, I became more involved as the social science department representative in 2016, and then as the program coordinator in 2018. My responsibilities in this role include overseeing the application and selection process, communicating with and supporting mentor teachers, observing LTAs in their classrooms and sharing feedback, distributing and analyzing surveys and reflections to gather feedback about the strengths and areas of growth of the program, and highlighting instances of LTA growth and success. For the 2019 - 2020 cohort of LTAs, I organized orientations in the spring of 2019 in order to set expectations for their work as LTAs and provide an opportunity for LTAs to ask questions. My Education students planned the overall structure of the sessions, and current LTAs in each department led and facilitated the sessions. In order to continue to support this

cohort, I facilitated several 50-minute support sessions throughout the year, during which LTAs could seek feedback on the challenges they were facing and share best practices.

Recognizing that many LTAs might have been wonderful classroom leaders but needed a bit more support in terms of classroom management, building relationships with students, and planning and teaching lessons, I also created an Introduction to Secondary Education class in the 2018 - 2019 school year. This is a dual credit class that LTAs take alongside the class they are an LTA for, and it is rooted in Educational Psychology and Education Policy curricula at National Louis University. In its first year, there were eight students in Introduction to Secondary Education; during its second year and the year of this study, there were 17. Within the course there is a range of interest levels in teaching; some students are committed to pursuing a career in education, while others are simply interested in becoming a more effective LTA and are generally interested in education.

Research Question & Rationale

During my first year teaching the Education class, I frequently questioned whether the pedagogy and strategies I chose to focus on in class were actually helping the students to be better and more effective LTAs. It was also a challenge to discuss teaching methodology that would be useful to each student considering the wide variety of contexts in which they were teaching; their LTA classrooms ranged from 8th grade Biology to Theatre I to AP Psychology. Despite my efforts to get to know each of their teaching contexts and introduce relevant methods for each, it was nonetheless a challenge. As a result I mostly focused on practices and strategies that were widely accepted as best practices and could be applied to a variety of disciplines; for example, differentiation or growth mindset. Still I wondered - were they actually able to apply what we were learning and discussing in class to their own work as LTAs? What impact was this having on their students and their mentors? To what extent did they feel more empowered and effective as a result of their learning in my Education class?

I also wondered how I could apply what was working with this small group of LTAs to support the program as a whole. On the mid-year mentor feedback survey during the 2018 - 2019 school year, one teacher wrote that she was very grateful for the Education class, because she noticed that AP, who was one of her LTAs and was a student in my Education class, was outshining the others in terms of her ability to be proactive and effective as an LTA. Despite this positive feedback, I still questioned what specifically we had done in class that had enabled AP to become more effective in the classroom, and whether this was the case for all of the students. I also wondered whether this was simply due to the fact that she was extremely passionate about her work as an LTA and took the role seriously?

On the same survey, and more generally in conversations with mentors during my first year as coordinator, the most common response to questions about challenges they faced while mentoring an LTA were related to LTAs' proactivity, or lack thereof. Because there are already so many demands on our time, it is difficult for teachers to be able to explain each class and learning activity to their LTA in advance, let alone discuss ideas for how they could be involved. Therefore mentors frequently praise their LTAs who are able to jump into activities without

prompting and come up with their own ideas for how to engage with and support students. I had also experienced this as a mentor; it is certainly easier to have LTAs who just seem to “get it.” However I wondered the extent to which this could be taught or developed - and if so, what the best way to do this was?

Towards the middle of the 2018 - 2019 school year, I received two requests from mentors to come observe their LTAs in order to help them increase their proactivity and engagement with students. In the first classroom, I remember taking meticulous notes on what the teacher and students were saying, which I then used to create a brainstorm of ideas on how the LTAs could support what was happening in the class. From a twenty minute observation, I think I was able to come up with about ten different ideas for how to be more engaged and proactive. I shared the list with the two LTAs and told them I looked forward to coming back the following week to see how they had contributed. In our follow up discussion a week later, the LTAs were able to identify a few ways they had helped based on my list, but I was disappointed to hear from their mentor that after that, they continued to be hesitant to engage.

In the second classroom, I met with two LTAs who were going to be planning and teaching a lesson the following week. I talked through the “anatomy of a lesson plan,” helped them identify their objectives, discussed ideas for how to teach the material, and how to assess student understanding. They nodded and took notes and seemed to understand, yet they still seemed a bit uneasy about the prospect of teaching their lesson. Similar to the previous situation, the mentor expressed that the experience of teaching their lesson did not spark an increase in proactivity for these LTAs.

Reflecting back on these experiences a year later, I have a completely different perspective. I now realize that I was too focused on trying to “fix” the situation instead of trying to understand the situation, which prevented me from effectively supporting the LTAs and the mentors. Nonetheless, these unsuccessful attempts at improving LTAs’ ability to be proactive and effective were an important starting point for this research project. In addition to wanting to critically examine and improve my curriculum for my Education course, I also wanted to understand how I could better support LTAs and mentors in the program as a whole. My research question became:

What happens when high school Teacher Apprentices engage in professional development practices in order to improve and take ownership over their practice?

In an effort to honor Molly’s initial vision that our LTAs were apprentices to the craft of teaching, I decided to implement professional development practices that are considered best practices in the field. These strategies included more consistent opportunities to reflect on their work, engaging in peer observations, and participating in collaborative discussions around teaching and learning. I developed the following sub-questions, in order to gauge how these practices impacted various outcomes for LTAs, the program as a whole, and my connection to this work.

- 1. What happens to LTAs’ proactivity?**
- 2. What happens to LTAs’ growth?**
- 3. What happens to LTAs’ interest in and understanding of the teaching profession?**
- 4. What happens to my relationship to the program, the mentors, and the LTAs?**

Literature Review

The Status of the Teaching Profession

The year in which this research was conducted included several challenges and disruptions, which in turn has led to a great deal of discussion in the public about the status of the teaching profession, the work that teachers do, and the conditions in which this work is done. On October 17, 2019, the Chicago Teachers Union went on strike in order to advocate for, among other things, more equitable learning environments for our students. I remember speaking to the pre-service teaching candidates I work with at Northwestern at the beginning of the strike and hearing a mix of concern and excitement. Pre-service teachers were concerned about what the strike indicated about working conditions and the lack of resources in the schools they would soon be entering. The strike brought attention to many of the challenges we face as teachers, as well as the fact that these challenges have contributed to the high turnover and attrition rate in the profession over the past few decades. On the other hand, this strike also brought about inspiration and excitement for those who view this moment as an opportunity to redefine what our classrooms and schools can look like through a social justice lens. These reactions reflect two realities that deeply influence the motivation for this project and for the Lindblom Teacher Apprentice Program as a whole: first, that the teaching profession is struggling to attract new candidates; second, that this challenge also provides an opportunity to transform how we recruit and support new teachers, while hopefully doing so with race and equity in mind.

There are fewer people going into teaching today than in the past. Enrolment in teacher education programs has declined in recent years and many districts are facing widespread teaching shortages. According to the Illinois State Board of Education, as of October 1, 2019 there were 1,859 unfilled teaching positions, as well as an additional 1,864 unfilled paraprofessional or support staff positions. Retention in the profession is also an issue; according to a 2017 study by Denise Carver-Thomas and Linda Darling-Hammond, there is a national teacher attrition rate of 8%, and turnover is higher for teachers of color. Focusing specifically on CPS, Bond, Quintero, Casey, and Carlo (2017) found that, “within five years, almost half (47%) of new White hires had left the sector, 42% of Black hires, and about 30% of Hispanic hires” (p. 45). At a time when teacher education programs are thinking of new ways to attract and support teacher candidates, they have an opportunity to address another significant issue facing the profession: the underrepresentation of teachers of color.

Historical Roots & Current Lack of Diversity in the Teaching Profession

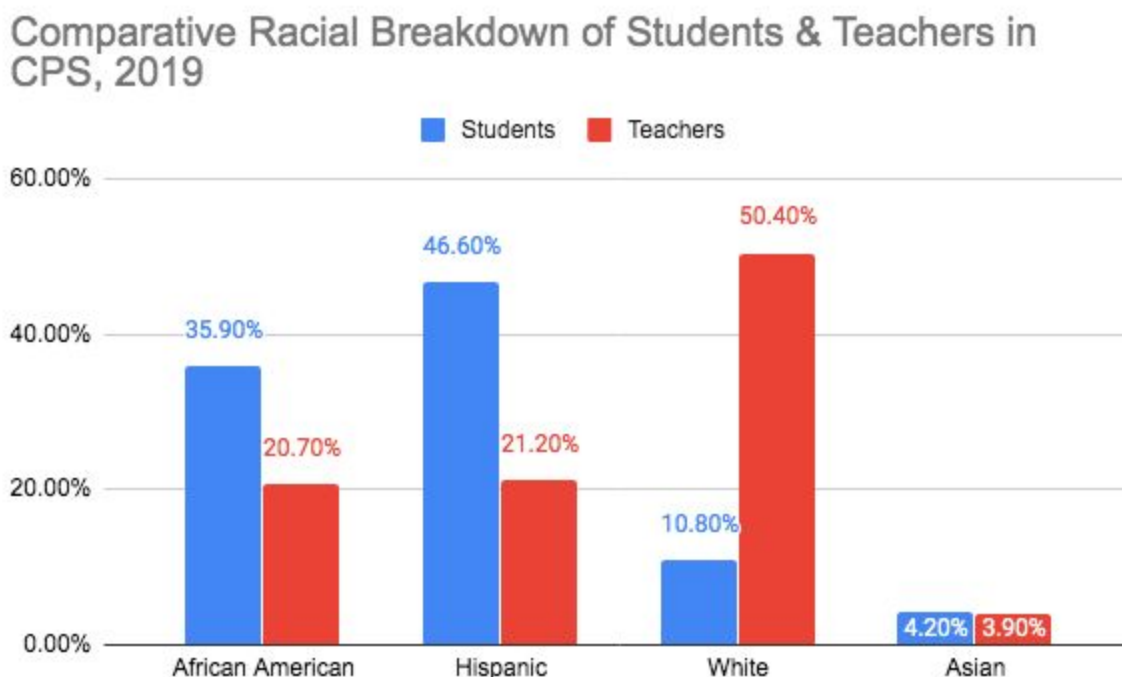
Historically, white women have been overrepresented in the teaching force while men and people of color have been underrepresented. As a white female teacher, and coordinator of a program that aims to address this underrepresentation, it is imperative for me to not only acknowledge this trend but understand its historical root causes. The moment when public education was expanding in this country also coincided with many colleges' decision to begin admitting female students in the mid-19th century (Mauer, 2017). Due to gendered stereotypes

about women being more nurturing than men and reluctance to encourage women to enter certain other more “masculine” professions, colleges encouraged and at times even forced women to major in education (Mauer, 2017). Meanwhile, the lack of access to higher education for minoritized people through both formal and informal means ensured that many professions, including teaching, remained predominantly white.

After the Civil Rights Act of 1964, access to professional opportunities expanded for both women and people of color, yet many pursued more lucrative careers in engineering, health care, and business over teaching (Villegas & Davis, 2007). From 1990 to 2000, enrollment of students of color in institutions of higher learning increased by 48%, yet the racial and ethnic diversity in teacher preparation programs has remained relatively stagnant (Irizarry, 2007). In their expansive report on *The State of Teacher Diversity in American Education*, Bond, Quintero, Casey, and Carlo (2017) found that “over the 25-year period from 1987 to 2012, the minority share of the American teaching force—including Black, Hispanic, Asian and Pacific Islander, American Indian and multiracial teachers—has grown from 12 percent to 17 percent” (p. 5). The reasons for this vary; however, many scholars have cited low teacher pay as a leading factor for why students may choose a more lucrative major and career. Villegas and Davis (2007) also argue that teacher education programs lack a sense of urgency in addressing this issue and meaningfully recruiting and supporting teacher candidates of color. The fact that the majority of teacher education programs are housed in Predominantly White Institutions could also be contributing to the lack of diversity amongst education majors (Villegas and Davis, 2007).

These national trends are also reflected at the state and city level, and in some cases the lack of diversity is actually increasing. Focusing specifically on Illinois, Emmanuel (2018) found that, “the number of African-Americans statewide graduating with degrees in education has dropped by more than half, from 1,724 in 2009 to 802 in 2016, according to the Illinois Board of Higher Education” (p. 1). This suggests that the lack of diverse teachers is not only persisting but becoming a more urgent issue. Chicago does have one of the highest percentages of teachers of color in the state, however there is nonetheless a considerable representation gap between students and teachers. According to data reported by the district, of the 21,395 teachers in Chicago Public Schools in 2019, 20.7% are African American, 21.2% are Hispanic, 50.4% are white, and 3.9% are Asian. On the other hand, the students are 35.9% African American, 46.6% Hispanic, 10.8% white, and 4.2% Asian.

Figure 1: Representation Gaps in Chicago Public Schools, 2019.



The ratio of Asian students to teachers is most closely aligned, while white teachers are drastically overrepresented and African American and Hispanic teachers are underrepresented in comparison with the percentage of students within each of these demographics. The low percentage of African American teachers is perhaps most alarming, considering the fact that they accounted for 41% of the teachers in the district in 2000 (Emmanuel, 2018). This is a 21% decline in African American teachers in CPS from 2000 to 2019. In her book *Ghosts in the Schoolyard*, Eve Ewing identifies the wave of school closings in 2013, which disproportionately targeted schools with majority Black students and teachers, as a major cause for this decline (2018). Shortages of teachers of color have negative consequences for all students (Villegas & Davis, 2007), however these consequences are especially significant in a district where close to 90% of the students are non-white. Identifying the variety of benefits of diversifying the teaching force can hopefully provide a sense of urgency for addressing these shortages.

Benefits of Diversifying the Teaching Force

Bond, Quintero, Casey, and Carlo (2017) identify five major arguments for diversifying the teaching force. First, because teachers of color (and specifically Black teachers) are particularly motivated to support students of color, they argue that diversifying the profession can reduce teacher turnover, especially in “hard to staff” schools (p. 9). The authors also argue that having more teachers of color can reduce the “expectations gap” for minority students that can occur in schools with predominantly white staff, while also reducing implicit bias by providing role models of all races (Bond et. al., 2017, p. 10).

Perhaps most significant to this project and the role that Teacher Apprentices occupy at Lindblom are the positive effects of having more diverse role models for students. Having

teachers of color has academic benefits for both Black and White students, leading to lower dropout rates. However, these benefits are especially pronounced for students of color, who benefit from,

“having access to role models who (1) understand their home cultures, (2) understand the education system and have succeeded in it, (3) are interested in the students’ educational progress, (4) will challenge students academically. That is, culturally similar teachers may take more interest in mentoring minority students and have more credibility with those students”

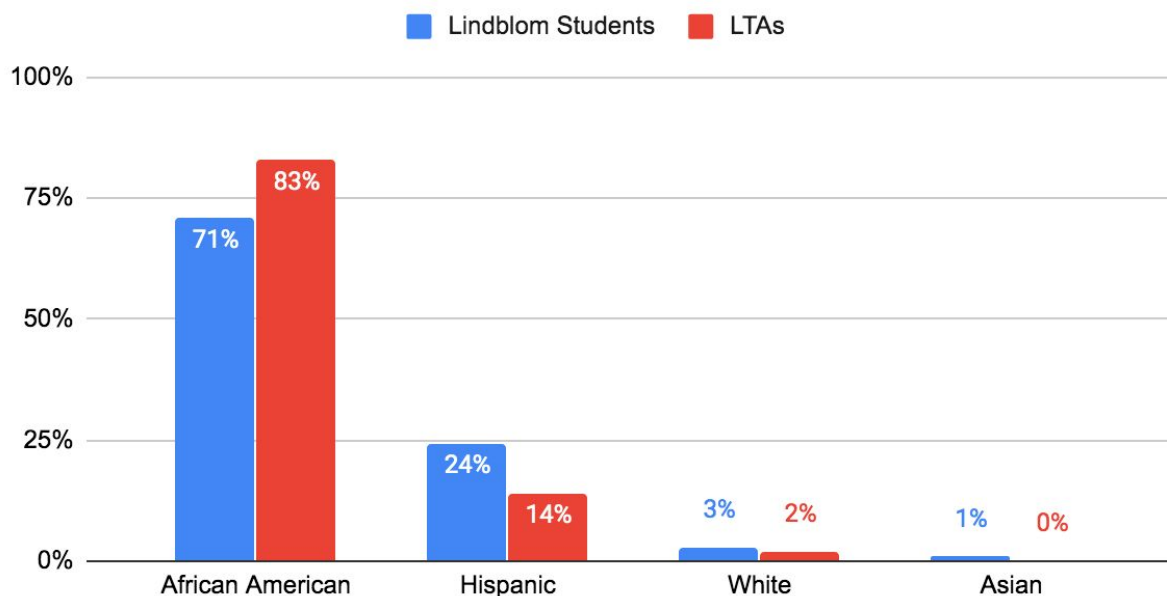
(Klopfenstein, 2005, as cited in Bond et al., p. 10).

Similarly, a recent study found that Black students who had a Black teacher in early elementary school (Kindergarten through third grade) were 7% more likely than their peers to graduate from high school and 13% more likely to enrol in college or university (Gershenson et al., 2018). Having role models and authority figures in the classroom that are more diverse can have a multitude of positive effects for students.

Given these benefits, it is imperative for teacher education programs and school districts alike to examine their current policies for recruiting teacher candidates and prioritize recruiting and . Many studies (Irizarry, 2007; Villegas & Davis, 2007; Bond et al, 2017) have identified the success of “grow your own” programs that recruit directly from the community. The Lindblom Teacher Apprentice Program is one such program. As previously mentioned, one of the initial goals of the program was to expose our students to the profession, with the hope that this exposure might spark an interest in teaching. The program has grown significantly in the past 8 years, and although this is not the focus of the current study, the increase in diverse role models in the classroom has potentially positive benefits for Lindblom students. Although our staff is predominantly White, our LTAs are much more reflective of the racial identities of our students.

Figure 2: Race & Identity of Students & Lindblom Teacher Apprentices, 2019 - 2020.

Comparative Racial Breakdown of Students & LTAs at Lindblom, 2019 - 2020



Although this is hopefully providing students with some of the positive benefits described above of having diverse role models and teachers, whether this program is meaningfully preparing students for the profession, and therefore providing a more long-term and meaningful solution to the lack of diversity in our profession, is not yet clear. Therefore, it is important to also consider what supports are most effective for teacher apprentices, or pre-service teachers in general.

Methods for Supporting Teacher Apprentices

As Villegas and Davis (2007) mention, there is a decent amount of literature on recruitment methods for teachers of color; however, there are far fewer studies about how to prepare and support these teachers once they enter the profession. This relates to the LTA Program on two levels. One initial goal of the program was to expose our students (who are predominantly African American and Latinx) to the craft of teaching as a potential career for them, similar to Irizarry's "home-growing" method (2007), which is also a key recommendation of Bond, Quintero, Casey, and Carlo's study (2017). On another level, a main goal of my project is to determine the methods that will best support LTAs' work in the classroom and encourage them to take ownership over their craft. Therefore this project seeks to address the gap in the literature stated above.

Despite the relative lack of research specific to high school apprentice programs, examining methods used in teacher education programs to support the development of pre-service teachers more broadly provides some important insights. Uline, Wilson, and Cordry (2004) examined the impact of reflective journals for pre-service teachers during their practicum sites. In particular, having students identify their "most significant learnings" from what they

observed in the classroom encouraged them to reflect on what they were seeing and make connections between theory and practice (p. 458). Similarly, in a study of a group of 11 apprentice teachers in a youth basketball program, Cutforth and Puckett (1999) also used a daily reflection tool for apprentices to identify their strengths and areas of growth. This practice led to an increased level of self-awareness over time. These findings corroborate one student's response on my survey to former LTAs in the early stages of this project. In response to the question about which supports helped with the development of a teacher mindset, OS wrote "the constant reflections on ways to improve is what allowed me to adjust to not only setting these boundaries [between himself & students], but being ok with roles under the classroom setting" (October, 2019). RV also mentioned reflection as an essential aspect of having a "teacher mindset" in terms of, "knowing that you are just as human as your students. Knowing that and finding ways to reflect that within your classroom is my definition of a teacher mindset" (November, 2019).

Another common practice for novice teachers to engage in to develop their craft is peer collaboration. Villegas and Davis (2007) mention the use of structured group collaboration as a means of peer support, which can be especially meaningful for pre-service teachers of color in predominantly White programs. In Cutforth and Puckett's (1999) study, peer coaching through a "Coaching Club" was also a prerequisite for their role as Apprentice Teacher during their summer basketball program (p. 157). The impact of peer collaboration was echoed in the LTA survey as well; RV mentioned, "connecting with [other LTAs] and learning from them was just as important to me as actually being in the classroom" (November, 2019).

In addition to more general forms of peer collaboration, scholars have also suggested that peer observation can have positive outcomes. In their book on engaging teachers in instructional rounds of observation, City, Elmore, Fiarman, and Teitel (2009) discuss strategies for implementing peer observation as a method for improving instruction. In order for these observations to be beneficial, they emphasize the need to remain objective during observations by focusing on "the evidence of what you see - not what you *think* about what you see" (p. 84). Because all teachers, especially apprentices or novice teachers, likely have very different definitions of what "good" teaching looks like, this emphasis on objectivity ensures that the observations are more objective and purposeful. Cutforth and Puckett (1999) mention observation in the context of the program coordinator observing apprentices and giving individualized feedback, which is also a common practice in teacher education programs.

Due to my own personal interest in and passion for discussing pedagogy, I had initially intended for explicit instruction of teaching strategies to play a central role in the interventions introduced to support our Teacher Apprentices. However, the above research on reflection, peer collaboration, and peer observation encouraged me to prioritize these interventions instead. The work of City, Elmore, Fiarman, and Teitel was especially useful in helping me design a peer observation protocol for our LTAs (see Appendix A). The impact of this intervention, as well as emphasizing reflection and peer collaboration, will be discussed further in my Data Analysis section.

Summary of Data Sources:

The following data sources were collected and analyzed to inform my research question and sub-questions:

1. **Survey to Former LTAs.** In October, 2019, I sent a survey to Lindblom alumni who had been part of the LTA program. The survey included qualitative and quantitative questions about their experience as an LTA, along with how the program continues to impact them. Six students responded to the survey. These responses informed the interventions and supports I introduced this year, such as peer observations and more consistent reflections.
2. **Teacher Journal.** Throughout the year, I kept a journal of my thoughts and evolving wonderings related to my research, the program, and my Education class.
3. **LTA Reflections.** In order to provide LTAs with the opportunity to reflect on their work, I created google form reflections and posted them to our LTA Google classroom page approximately every five weeks. These were not required, however LTAs were encouraged to complete these reflections. I also emailed the link to mentors so they could encourage their LTAs to complete them if they would like. There were five reflections posted throughout the year, however the two that will be the focus of my data analysis were Reflection #3 (December 2019) and Reflection #4 (January 2020). These reflections had the most responses and were most relevant to my research.
4. **Education Students' Lesson Reflections.** My Education students planned and taught two formal lessons during first semester. After each lesson they completed a narrative reflection that included questions about their challenges, successes, and areas of growth.
5. **LTA Applications for 2019-2020 & 2020-2021 cohorts.** In order to understand the various motivations for why students apply to the program, and also analyze how their initial motivations and expectations compared to their experience in the program, I analyzed data from the program applications. The application consists of a Google form and is the first step in the selection process for the program. In particular, I focused on students' responses to the question "Why are you applying to be an LTA?" and analyzed these responses into themes.
6. **Mentor Survey & Interviews.** In April, I sent out a google form survey to the 44 mentors in the program. The purpose was to gather feedback on their experiences this year, while also gathering ideas for next year. I included an option to participate in a follow up interview, which 15 mentors participated in.

Data Analysis, Findings, & Interpretations

Sub-Question #1: What happens to LTAs' ability to be proactive in the classroom?

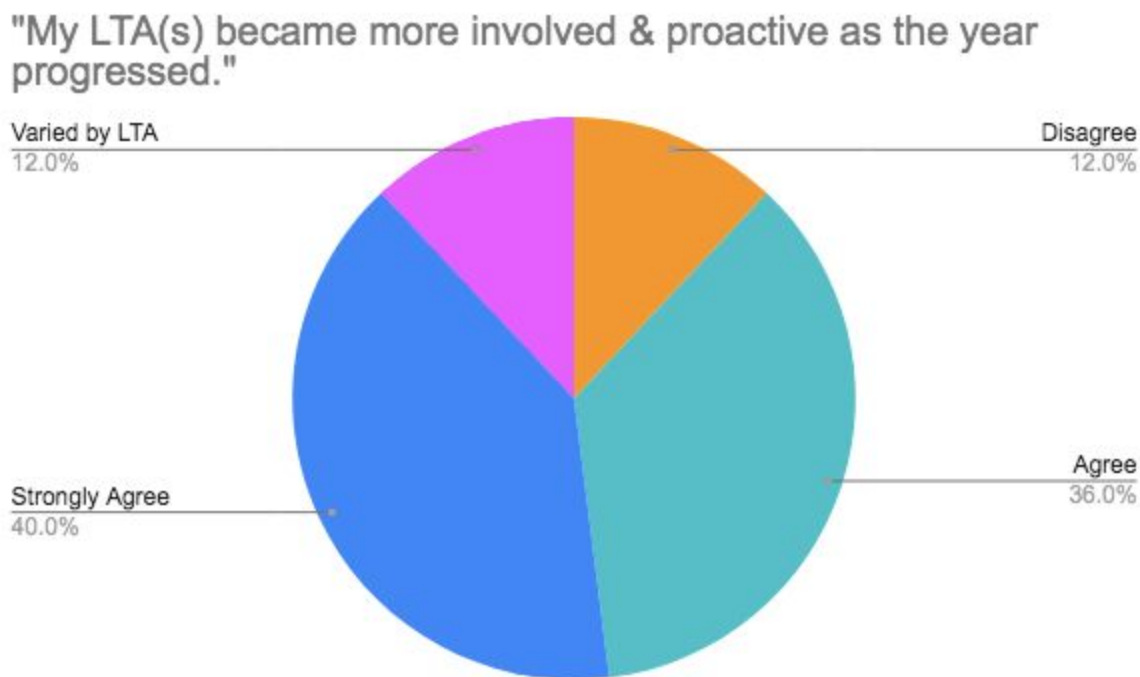
This project initially started as a means for me to discover how I might support our LTAs in becoming more proactive. As the year progressed my research started to take me in new directions, however I still think it is worthwhile to examine whether the professional development strategies implemented this year in the program and in my Education class impacted LTAs' ability to be proactive. It should also be noted that perceptions of proactivity may vary between LTA and mentor, and also across LTAs and mentors. An LTA may feel that they are not very proactive in their classroom, and the mentor may think the opposite. This may be true the other way around as well.

Mentor Survey & Interviews, April 2020.

In order to gather insights from the mentors on their experience in the program this year, I sent a survey to the 45 mentor teachers at the end of March, 2020. The survey included a mix of open ended questions as well as questions that asked them to rate the effectiveness of various supports I provided and the growth and effectiveness of their LTAs. Twenty five out of 45 mentor teachers, or 55%, completed the survey. Every department was represented in these responses, and there was also a variety in the number of LTAs the mentors who responded had. Therefore, even though not all mentors completed the survey, the responses do provide a broad range of perspectives on the program. It should also be noted that this is an increase in engagement with feedback surveys from mentors; the previous year (2018 - 2019) only 18 mentors (40%) completed the mid-year feedback survey. I see this increase in engagement as promising, while also recognizing that I must continue to find ways to seek insights from all mentors.

On the survey there was a section that asked mentors to rate several aspects of their experience with their LTA this year. In response to the statement, "My LTA(s) became more involved & proactive as the year progressed," 19 out of 25 (76%) either agreed or strongly agreed. No teachers strongly disagreed, however 3 out of 25 (12%) disagreed with the statement. Two of these 3 explained their disagreement later on. One mentioned that her LTA was incredibly proactive at the beginning of the year, and if anything started to slightly decline during third quarter due to personal issues she was having. She was a strong LTA overall, but didn't necessarily become *more* involved over time based on where she started the year. Similarly, another teacher wrote, "I said disagree mostly because the ones that were strong remained strong, and I didn't really challenge them to be even better." The remaining 3 responses indicated that a change in proactivity varied by LTA. These responses are demonstrated in the figure below.

Figure 3: Mentor Responses to Proactivity Question on End of Year Survey, n = 25.



This data suggests that, contrary to my initial assumptions, proactivity is not necessarily fixed and that LTAs are capable of becoming more proactive as the year progresses. The follow up interviews with mentors were helpful in terms of understanding the variety of factors that can contribute to this. CB mentioned that one of her LTAs was a bit shy at the beginning of the year and that it took her about a quarter to get comfortable and start jumping in to help. By the end of the year, she was making review games and warmups for students without being asked explicitly by her mentor. JG mentioned something similar, explaining, "every experience is different - some are more proactive, some are not; once connections are made between students and TAs there is a comfortability to feel more ok taking the leap to do things on their own." JG had seven LTAs this year, all with varying strengths and personalities, yet she acknowledges that their ability to become more comfortable in their role was a key for them becoming more proactive and involved.

JG's acknowledgement that "every experience is different" aligns with a key finding of this research that will be explored further in sub-question 4. As the year progressed, I realized that it was difficult to find one or two or even three specific strategies that would increase proactivity in our LTAs, since their personalities, strengths, and goals in entering the program were all so different. The classrooms they were teaching in also varied drastically. As MS mentioned in his mentor survey, "humans are humans. The LTAs and the 7th graders all have their personalities and history they bring into the classroom." Because of this variety, I realized that perhaps cultivating proactivity was not quite as meaningful as supporting LTAs' growth more broadly. Before exploring this in more depth in sub-question 2, I will examine a case study

student who became noticeably more proactive in response to two interventions that were implemented this year: consistent reflections and peer observation.

Case Study: NH

Before examining NH's story, I first want to first acknowledge that these supports alone did not necessarily have the same impact on all students who engaged in them, and there are changes I will continue to make to both the reflections and the peer observations in order to increase their effectiveness. Nonetheless, this case study played an important role in helping me understand the benefits and limitations of these supports, in particular in terms of how they can help develop an LTA's proactivity.

NH was an LTA in a 7th grade Biology classroom. She completed LTA Reflection #2 in November, and although she gave herself a score of 3 out of 4 for both "respect and rapport" and "maturity and professionalism," she gave herself a score of 1 out of 4 for "proactivity." In the explanation for her score, she wrote, "I don't really advocate for myself as an LTA. I mostly go with the flow of things which I realize I need to work on." I appreciated NH's self-awareness and honesty in her reflection. Since this was the first program-wide LTA Reflection that I had posted, I read and responded to each student via email. I wanted to be sure to validate those who took the time to complete the reflection, and where relevant I provided follow up questions or insights if they identified challenges. I also cc'ed the mentor teachers on each of these emails and invited them to chime in as well.

NH's mentor, LL, responded with an incredibly thoughtful email, full of specific ideas to help her become more involved. She also recommended that she participate in a peer observation. NH responded to both of us expressing interest in an observation with another LTA who teaches younger students, and requested that she observe more than one LTA if possible. She also requested that they come to observe her to give feedback during second semester.

I arranged for NH to observe two LTAs: one in a 9th grade English classroom, and the other in a 10th grade Social Science classroom. I followed up with her via email to ask how it went, and she responded with the following:

Hi Ms. Hollerbach,

The observations were very helpful and I got a better understanding of what I need to be doing. [AKE] gave me really good advice about how to engage with the student and participate more, which I really appreciate.

Thank you again for letting me observe!

At this point in the year I had arranged for 6 pairs of observations and I found it difficult to determine what impact they had for the LTAs who participated, as well as for their students and their mentors. I was very encouraged to get this email and hear that the observation, which was sparked by her reflection, was beneficial for her. This data provides a sharp contrast to the outcome of my interventions the previous year aimed at increasing proactivity. Simply giving students ideas on how to be involved was not effective, however providing opportunities for

students to engage with a peer was much more successful and meaningful in this case. It should be noted that this success is also due to NH's own self-awareness and willingness to improve.

While NH felt like the observation was helpful to her, I wondered if her mentor also noticed a difference. On the end of the year mentor survey, LL indicated that she strongly agreed with the statement asking if her LTA had become more involved and proactive as the year progressed. She also added the following comment in response to a question about growth:

I saw spurts of growth in [NH], I think it really happened at times where she had specific ideas or when she saw specific strategies in her peer observation. I think she viewed class a lot of time as "lecture" when we were doing whole group activities or having a class discussion. I gave her ideas in written form (intro doc, emails), but I think she really needed visual ideas, and couldn't pick up on what I was doing just by watching. I wonder if videos of strategies might have helped her.

This response supports the interpretation that a peer observation was helpful for NH, but also demonstrates what a thoughtful mentor LL is. She is able to identify specific strategies that helped her LTA grow as well as additional strategies that may help her in the future. This suggests that having involved and supportive mentors is also a key ingredient to supporting LTAs' ability to be proactive.

NH applied to continue in the program for a second year. On her application, she wrote, "I think I can contribute a lot more." I look forward to continuing to find opportunities to support her growth. This outcome will be explored further in the following section.

Sub-Question #2: What happens to LTAs' growth?

As the LTA Program has grown to include over 100 LTAs, it has been a challenge to identify specific and consistent goals and outcomes for all LTAs; I've realized that perhaps it is more important for these to be discussed and addressed individually. Whatever these specific outcomes are, it is important to me that LTAs demonstrate growth as the year goes on. This could be growth in terms of their teaching skills, their confidence, their relationships with students, or a variety of other outcomes that enhance the classroom environment and make the experience meaningful for the LTAs themselves. In order to identify the supports and opportunities that have sparked the most growth, I will examine three main sources of data: growth related questions on the mentor survey, a reflection completed by LTAs in December, and two lesson reflections completed by my Education students from November through January. Lastly, I will examine a case study student who demonstrated exceptional growth.

Mentor Surveys & Interviews, April 2020.

In addition to the survey question specifically asking about LTAs becoming more proactive and involved as the year went on, there were also two questions related to growth

more generally. In response to the statement, “My LTA(s) exhibited professional growth (meaning growth in their teaching),” 9 out of 25 (36%) strongly agreed and 10 out of 25 (40%) agreed. Two mentors (8%) disagreed, and no mentors strongly disagreed. Four mentors (15%) said that this varied by LTA. In response to the statement, “My LTA(s) exhibited personal growth,” 13 out of 25 (52%) strongly agreed and 9 out of 25 (36%) agreed. Only one mentor disagreed, and no mentors strongly disagreed. Two mentors indicated that this varied by LTA. These responses are visualized below in Figures 2 and 3.

Figure 4: Mentor Responses to Professional Growth Question on End of Year Survey, n = 25.

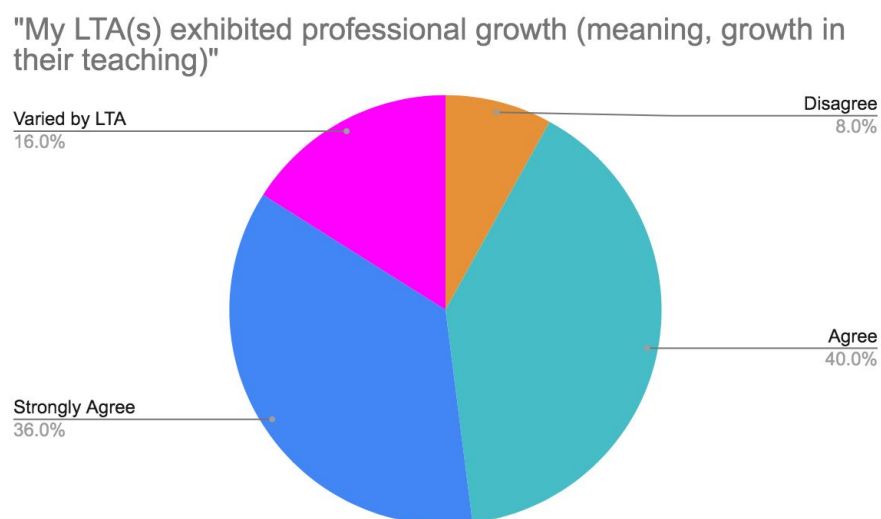


Figure 5: Mentor Responses to Personal Growth Question on End of Year Survey, n = 25.

The majority of mentors responded affirmatively to both statements, however more mentors indicated that their LTAs exhibited personal growth (88%) than professional growth (76%). The proportion of “strongly agree” responses was also higher for personal growth (52%) than for professional growth (36%). This suggests that, from the mentors’ perspectives, the majority of LTAs referenced in this survey exhibited growth. The slightly lower percentage of mentors who responded affirmatively to the professional growth statement could be due to a variety of factors. It could be due to the ways that mentors are visualizing and defining “professional growth.” It could also be that these LTAs’ goals and motivations for applying were more closely related to personal growth than understanding and mastering the craft of teaching. This will be explored further in sub-question 4. Lastly, the amount of opportunities LTAs have to plan, teach, and take on other professional responsibilities varies by the mentor and structure of the class; some may have just had more opportunities to develop their practice and demonstrate their professional growth.

In order to further explain the factors that *did* encourage growth in LTAs, mentors had the option to provide additional examples or comments. The variety in factors identified in these responses further confirmed that the personality of the LTA, the context of the class, and the mentor themselves all significantly impacted growth in different ways. NR mentioned that his LTA’s familiarity and comfort with him as a teacher may have helped one of his LTAs grow. KC mentioned how she used metacognitive strategies to help her LTAs reflect. IB explained that:

taking my LTAs observations and feedback about students seriously and acting on it helped build her confidence and I think that also showed that I respected her ability to understand/unpack things that were happening. This made her more confident with my students - more able to assert herself, etc.

Three other mentors mentioned some connection to an increase in confidence, and two of these indicated that opportunities to teach positively impacted confidence and growth. BK mentioned, “students grew most after teaching their mini lessons. I could see that they enjoyed doing it and wanted to try again,” and BG explained, “she just needed chances to lead. This gave her confidence and helped her be more proactive.” While there is not necessarily one specific strategy that cultivated growth, it is clear that mentors’ ability to build relationships with their LTAs and provide them with opportunities to teach, lead, and reflect positively impacted these LTAs’ growth.

It should also be noted that 5 of the 11 mentors who responded to this optional question with examples had LTAs who were in my Education class. NC specifically mentioned the impact of the Education class, saying, “I think I probably saw the most growth in SL, JZ, and AD this year. I think your Education class (and just the increased interaction and stronger relationships) you had with SL and AD really helped to support them.” This suggests that additional opportunities to discuss their work as LTAs and receive additional support from me had a positive impact on these two LTAs’ growth. In order to further explore the impact of my class, along with other program-wide supports, I will next examine perspectives from the LTAs themselves.

LTA Reflection #3, December 2019

In December, I posted a reflection on Google classroom and LTAs had the option to complete it before winter break. This was the third reflection of the year, and although it was not required students were encouraged to complete it as an opportunity to reflect on their work. I emailed the mentors to tell them about the reflection and encourage their LTAs to respond - at their request, I started posting reflections every five weeks for LTAs to respond to. Of 112 LTAs, 29 completed this reflection; 7 of these responses were submitted by LTAs who are also in my Education class.

One question in particular related to growth and asked: "What is one specific way you have grown as an LTA over the past few months? This could be in relation to a goal you previously set, or as a result of becoming more comfortable and involved in the class. What factors or supports have enabled this growth?" All 29 students who completed the reflection responded to this question indicating at least one way in which they felt they had grown, and some students identified multiple ways. The most common response was related to students feeling more comfortable in their role or that they have a better understanding of the class content, their mentor, or their students. This growth in comfort seems to have manifested in four major ways: increased ability to support students (9/29, or 31%), increased ability to be proactive and responsive (9/29, or 31%), improved relationships with students (9/29, or 31%), and increased teaching confidence and effectiveness (8/29, or 27%). Students' responses were coded in multiple categories if they mentioned growing in more than one way. The table below provides an example response for each coding category.

Table 1: Response Categories & Sample Responses for Growth Question on LTA Reflection #3 (December, 2019)

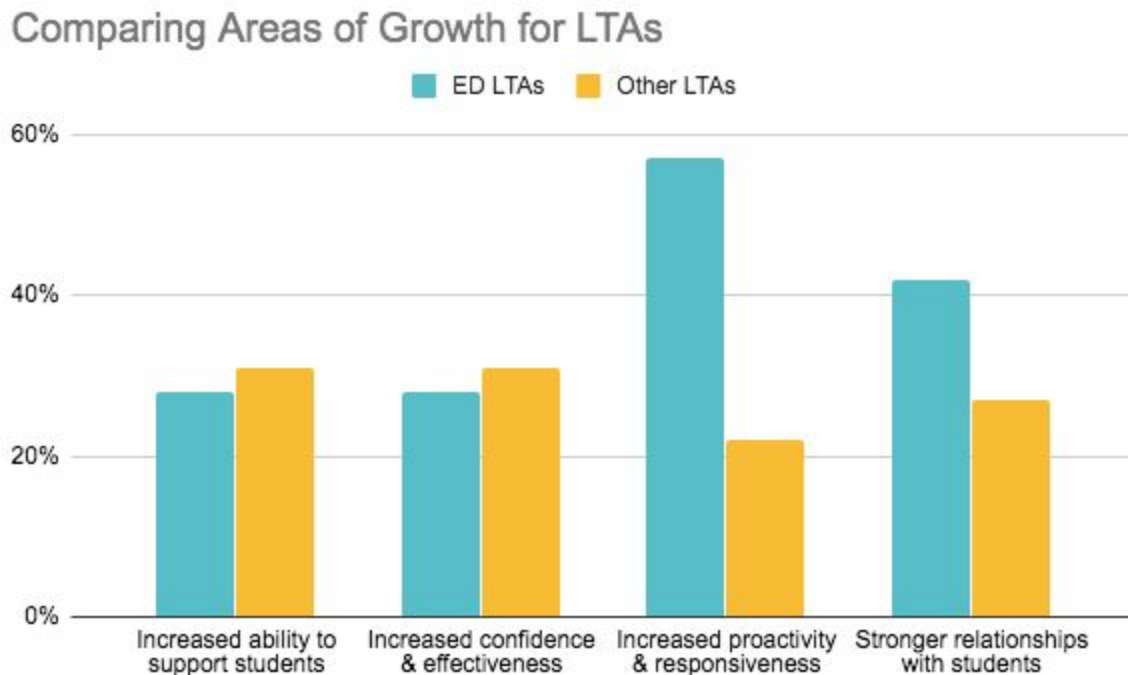
Response Category	Sample Response
Increased ability to support students (9/29, or 31%)	"I've become much more comfortable with the students which has let me help them better individually. I think the realization that I'm the bridge between the students and the teacher has help me come to that, as well as just observing them over the past couple of months."
Increased teaching confidence / effectiveness (8/29) - 27%	"My teaching confidence has grown tremendously. The more often I taught lessons and reviewed answers in front of the class the more comfortable I was at public speaking and teaching. I now ask improved & more natural questions while teaching."
Increased ability to be proactive & responsive (9/29) - 31%	"I've gotten better at finding ways to engage with my kids during their free work time, I think apart of this is due to now having been a TA for a couple of months and becoming more comfortable in the space. I found out how to balance between slight spectating when floating around the room and letting them be on their own. As well

	as when I don't want to hover too much, being proactive for other parts of class.”
Improved relationships with students (9/29) - 31%	“Over the past few months [I've] grown to be more comfortable in the classroom and build a relationship with my students; not only based off respect but also off trust.”

This data suggests that these LTAs were exhibiting growth, yet it was a bit more difficult to determine exactly what contributed to this growth. There was some evidence of this in their responses, for example one student above mentioned, “the more often I taught lessons and reviewed answers in front of the class the more comfortable I was at public speaking and teaching.” In order to determine the impact that my Education class could have potentially had, I analyzed the 7 responses that were from students who are in my Education class and compared them to the other LTAs’ responses. I wondered if the content of our course was providing them with more ideas and support for their work as LTAs, and also if the act of reflecting on their work more regularly was having an impact on them.

Overall, the growth in each category was relatively similar for LTAs who were not in my Education class; the number of responses in each category remained within a 10% range. For the first two coding categories, ability to support students and teaching confidence / effectiveness, the response rate for each sub-group were relatively similar. However my Education students were more likely to write about their ability to be proactive and responsive (4/7 or 57%) as well as their ability to build relationships with students (3/7 or 42%) than the average of other LTAs who completed the reflection. A graph of these comparisons is shown below.

Figure 6: Comparing Areas of Growth for Education students & other LTAs on LTA Reflection #3 (December, 2019).



LTAs who are also in my Education class may have been more likely to reference an increased proactivity and responsiveness for a variety of reasons. First, we often spent time in class discussing classroom scenarios, either brought up by students to seek advice or written by me to spark discussion. We also had dedicated “tea time” every Friday, when I would make tea for the class and we would discuss our challenges and victories related to teaching, along with our evolving thoughts related to the unit we were studying. These opportunities to discuss and seek feedback from their peers may have enabled them to be more responsive to the situations they were facing. They also may have been able to gather ideas for how to be more involved or proactive from hearing their peers describe their experiences in the classroom.



In addition, relationship building and cultivating respect and rapport were also essential aspects of the first months of our Education class, which may have contributed to my students being more likely to indicate growth in their ability to build relationships with students. During the fall semester, we started each class with a student-led community builder (see image). Each student was responsible for planning and leading a 15 - 20 minute activity, after which they participated in a debrief and discussed why they chose the activity and how they could adapt it to work with other ages and groups of students. On the semester 1 course feedback survey, 62% of my

students indicated that this was “essential” in helping them learn better understand teaching and learning and supporting their work as an LTA. The additional 38% indicated that this was very helpful; no students indicated that this was either only somewhat helpful or not helpful. Students also had a response paper in which they had to explain how they were building relationships with their students and what impact they thought this was having on the classroom environment. This early focus on respect and rapport may have provided my Education students with a wider variety of tools to build relationships with students, as well as an understanding of why this was important. One student, T.J.L, specifically mentioned this in the November reflection:

I've grown as an LTA over the past few months because at first I was all quiet and did not really interact with my students. Now I formed bonds with them and float around the room to offer help and support. Factors and supports that have enable[d] this growth is this class (*our education class*) and learning the structure of [my mentor's] class.

In order to get a clearer sense of what specifically we were doing in class that empowered students' growth, I will next examine a set of lesson reflections that they completed.

Education Students' Lesson Reflections, November 2019 - January 2020

In November, during our unit on assessment and backwards design, my Education students had to choose a skill or topic that they wanted to teach our class and design an assessment and a lesson around it. There was a wide range of what students chose to teach, including how to write a thank you note, how to write your name in Japanese, and how to interact with students with special needs. I gave feedback on each of their lesson plans if they submitted them on time, and those who did then had a chance to make adjustments as needed. Then, each student taught their lesson to a group of two to five students. After teaching their lessons they completed a written reflection.

Like many other aspects of our Education class, I modeled the reflection questions after the ones teachers would typically answer about their teaching after a REACH evaluation. There were questions about what they thought was successful about the lesson, what they would change if they were to teach it again, and how they wanted to grow or improve. In order to determine how I could supports students' growth, I analyzed their responses to the following reflection question:

Teaching is all about learning what works, and adapting what doesn't. You will be planning and teaching a lesson in our class one more time before the end of the semester. What is a specific skill you want to work on in that lesson, or an area of growth you have?

The most common type of response was related to timing, with 5 of 13 students who completed this reflection mentioning this as their area of growth. Three mentioned wanting to personalize or differentiate their instruction, 2 wrote about wanting to be able to adapt their teaching in the moment, and 2 others mentioned wanting to be more engaging while teaching. There were 7 other responses unique to one student, however for my planning purposes I focused on these first 4 growth areas.

Many of these growth areas are difficult to explicitly teach, but being aware of them enabled me to be more purposeful with modeling and pointing out examples of these practices in other teachers or in our class. For example, to better understand timing, I asked students to guess how long each learning activity would take at the beginning of class by looking at the agenda on the board. Then we compared their guesses with how long things actually took, and I explained at the end of class how I adjusted my timing during class based on how things were going. I also encouraged them to take notes on how long different types of activities tended to take in their LTA classrooms so they could get a better sense of how to estimate timing while planning their own lessons. I pointed out examples of differentiation when students were sharing stories or anecdotes from their classrooms. Lastly, after each student-led community builder at the beginning of class, I had each student verbally reflect on how they would adapt the activity to different groups or ages of students. My goal with these metacognitive exercises was to model the type of thinking that could help improve their growth areas.

Our next unit focused on understanding adolescence from different perspectives. Students formed literature circle groups of 2 to 4 and each focused on reading a book that centered on themes of adolescent identity. In order to explore each text and also continue to practice planning and teaching, each student was responsible for designing and leading a lesson around a section of the text. These lessons were a bit longer in length than the ones in the previous unit, ranging from 30 to 50 minutes. As with the previous set of lessons, I provided feedback on their lesson plans in advance and they completed a reflection on their planning and teaching after their lessons. I analyzed their responses to the following question: “How did planning and teaching this lesson compare to your last lesson? What was your teaching goal going into this lesson, and were you able to work on it during this lesson?”

Ten out of 16 students explicitly mentioned reaching their previously stated goal; one student did not complete the reflection. Before examining the students who did express growth, I will analyze the 6 students who did not explicitly mention meeting their goal. Two students, PD and LT, did not explicitly state that they thought they had reached their goal, but from the first to the second lesson they both improved their score in instruction from a 3 to a 4. These scores were self-assessed, and the improvement was because they both exhibited more flexibility and responsiveness in their second lessons. This suggests that they grew in terms of their teaching, despite not explicitly mentioning it in their reflection. SF mentioned that her planning and teaching “remained the same”; she earned a 4 for both planning and teaching for both lessons. Another student, AF, explained that she did not meet her goal, but she did express a plan for how to address this in her next lesson. She wrote,

Instead of the timing being too short, it was too long. My goal was to find a balance, and I over-did what I needed to. If I were to re-teach this lesson, I would take away some of the questions and try to put more focus on the post-it note activity and ways to help compare it to the general idea of the lessons in the first place.

Even though she was not successful in meeting her goal, she was able to identify why this was the case and make a plan for adjusting for next time.

The other 10 students identified a variety of reasons for why their second lessons were more successful. NA explained that being better prepared helped her work on her timing. She wrote,

I think my teaching lesson is way better than it was last time, just because the timing was an issue. I had a little bit of time left over and had to end the lesson earlier. But this time we were able to discuss and complete the activity and use up the whole time that was needed. I think I did reach [my] goal which was to have better time management and it worked better, I had back up questions just in case we had time left over as well!

KG and KN also wrote that they felt their timing had improved, and AB explained that she: “had many tricks up my sleeve to guarantee that the lesson wasn’t drawn out or incomplete.” AM’s response was a good example of both personalizing instruction and making her lesson more engaging. She wrote,

My teaching goal for this lesson was to be more engaging and involve the students more and I was able to effectively do this as I continued to keep the students involved through asking them questions about themselves and what they thought. This is a big improvement compared to last time as last time I did not even address the students but rather spoke to them the entire time.

This lesson included a thoughtful “hook” that allowed the students to reflect on their own family dynamics before discussing this theme in the book. AM also circulated during the lesson and asked follow up questions.

In addition to the majority of students affirming that they had demonstrated growth in their teaching there also seemed to be an increase in confidence as well as perhaps some evidence of a “teacher mindset” or teacher identity emerging. For example, JE wrote, with planning and teaching this lesson I felt a lot more confident overall. My confidence allowed me to better fully step into my role as teacher.” Similarly, MB commented, “it wasn’t until I was actually taking part in my lesson that I was able to open up and make it my own. [...] Before I knew it I was looking away from my notecards about my lesson and just being myself. The fact that the students knew each better by the time they were teaching this second set of lessons may have also increased their confidence and comfort. This could be due to the daily community builders or the fact that they were in the same literature circle groups for six weeks during these lessons. These reflections also align with comments from the mentors on the end of year survey. In particular, BK and BG, who mentioned a relationship between LTAs’ growth in confidence and their opportunities to teach.

Case Study: LT

LT is a student who demonstrated a significant amount of growth over the course of the year. In her application to be an LTA, she identified improving her leadership as a main motivation, explaining, “I plan to become an LTA because I plan to learn how to implement my leadership skills when leading a class or a big group.” She was a student in my Education class, and I remember her being attentive but a bit shy at the beginning of the year. On the introduction survey for the course, she expressed an interest in learning more about education, but she rated her interest in becoming a teacher a 3 on a scale of 1 to 5.

Her mentor teacher, BG, is my planning partner and I also teach the course that LT was an LTA in. Therefore, I was in regular communication with her about the class overall, as well as about her 4 LTAs, including LT. I remember her mentioning that LT was very responsible, but a bit quiet and hesitant as an LTA at the beginning of the year. However as the year went on, she gradually seemed to become more comfortable in her role. In December, in response to the question about growth on the LTA reflection, LT wrote:

Encouraging the students to actually think and don't get defeated by the prompts or assignments. A lot of students over think their tasks and don't do the work. In the beginning of the school year, I didn't really know how to approach students but overtime I would just casually go to their tables and just ask them how they're feeling so they can feel more comfortable with me.

From this response, she is demonstrating knowledge of her students and their abilities, which is something we discussed frequently in our Education class. She also acknowledges that she was unsure how to approach students at the beginning of the year, yet uses this as an opportunity to explain how she has grown in this way.

This growth and increased confidence was also apparent in her teaching. On her Unit 4 lesson reflection, after teaching her second lesson, she wrote,

Planning and teaching for this lesson was easier because it was something I knew the students had knowledge about prior to the lesson. But one challenge was extending the time. I didn't think my lesson would be long enough in a way that it would be effective to the students. The previous lesson I taught was more of a challenge because I know it may have been something new for the students but I also wouldn't know if they would be engaged.

In this reflection, LT is affirming that this second lesson was easier for her, and also identifies a concept from our unit on how students learn when she explains the connection to prior knowledge. She is able to reflect on challenges in planning both lessons, yet despite these challenges her peers provided her with overwhelmingly positive feedback on their exit slips after her second lesson. Her goal from the previous lesson was: "Greater communication- Wording what I want to say in a better way." All three of her students checked "clear instruction & communication" as one of her top three strengths during the lesson; SL even commented, "Her instructions were very clear and I liked the chill energy of the lesson. Went very smooth."

Opportunities to plan, teach, receive feedback, and reflect continued to nurture LT's growth as an LTA. On February 5, LT's mentor teacher nominated her for "LTA of the Week." In her nomination form, she wrote:

[LT] led a What in the World Warm up like a veteran teacher! She was extremely prepared, and gave precise directions and time allotments, used skilled questioning and behavior management techniques, and incorporated thoughtful discussion questions.

In a follow up interview with LT's mentor teacher, she explained how she continued to grow even after this as well. She taught another lesson a few weeks later that was creative and well planned.

I chose to focus on LT for this case study on growth because she would not have initially stood out to me as someone who was particularly passionate about developing her teaching practice. She applied to be an LTA in order to expand her leadership and was moderately interested in the teaching profession. She was also not particularly proactive at the beginning of the year. However, she demonstrated exceptional growth in terms of her ability to plan and teach lessons, as well as in her overall teaching presence. Her story suggests that providing LTAs with opportunities to plan, teach, and reflect, combined with support and feedback from peers, myself, and their mentor, can be powerful tools for supporting their growth.

Sub-Question #3: What happens to LTAs' interest in and understanding of the teaching profession?

If one of the goals for this program is to expose students who are potentially interested in teaching to the work of the profession through an apprenticeship in the classroom, it is essential for me to understand how this experience impacts students' interest in, and understanding of, the teaching profession. As I will explain further in sub question 4, students apply for this program with a wide variety of goals and motivations; interest in a career in teaching is only one of them. Regardless of their initial goals, the experience does appear to increase some students' interest in the teaching profession, and at the very least it expands their understanding of it. In order to examine this impact more thoroughly, and also identify which factors are most helpful in encouraging this shift in perception, I analyzed students' applications to program for the 2019 - 2020 school year along with a survey about their experiences at the end of first semester. Lastly, I end with a case study that demonstrates a significant shift in one LTA's interest in and understanding of the teaching profession.

LTA Applications, 2019 - 2020 Cohort, Spring 2019

Students' applications to the program for the 2019-2020 school year shed light on their initial goals and motivations for becoming an LTA. In particular, I was interested in how students responded to the question:

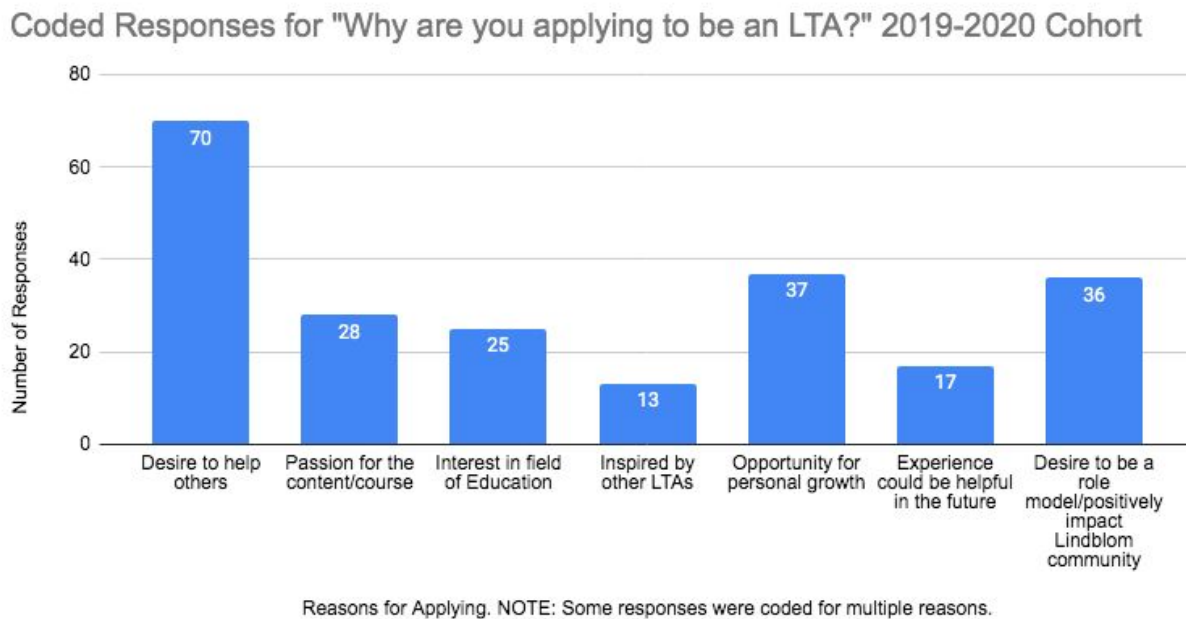
Why are you applying to be an LTA? In responding to this question, you should clearly and thoroughly explain your motivations for applying, what you hope to gain from this opportunity, and how you hope to impact your students. You may consider also explaining why you chose to apply in this specific department, and the course you identified above. Please note that we are looking to select students who are genuinely interested in this experience.

I decided to only analyze and code responses from the students who were accepted to the program and who were placed as LTAs for the 2019 - 2020 school year; this included 110 students who applied to 8 different departments: English, Social Science, Math, Fine Arts, Special Education, Science, World Language, and AP Seminar. After initially reading through their responses and identifying trends, I came up with the following coding categories: desire to help others, passion for course or content, interest in field of education, inspired by other LTAs,

opportunity for personal growth, experience could be beneficial for the future, and desire to be a role model or positively impact the Lindblom community. Most responses were coded for multiple categories, and there was also some overlap between categories at times. In the next sub question of data analysis, I will expand on the other coding categories and motivations for applying, since understanding these motivations has significant implications for my work as coordinator.

For the 2019 - 2020 cohort, 25 out of 110 applicants (23%) identified an interest in education as a profession in their application to the program. This was the fifth most frequent type of response, after desire to help others (70 out of 110), opportunity for personal growth (37 out of 110), desire to be a role model or positively impact the Lindblom community (36 out of 110), and passion for the course or content (28 out of 110). Figure 7 below demonstrates the frequency of each category of response.

Figure 7: Coded responses for “Why are you applying to be an LTA?”, 2019 - 2020 Cohort, n = 110.



Because less than a quarter of applicants specifically indicated it on their application and instead indicated a variety of other motivating factors, this suggests that an interest in teaching as a profession is not the most common or significant motivation that students enter this experience with. This pattern is also consistent with the students who signed up for my Education course; only 2 students in the course expressed interest in the field of education on her initial application to be an LTA. This could be influenced by the fact that students apply to the program in the winter of the previous year, then sign up for their courses in the spring. Students' career interests as well as their goals for their work as LTAs may certainly evolve and shift during this time. By the beginning of this school year, there seemed to be a slightly larger percentage of the students expressing interest in a career in teaching. On the beginning of the

year survey for the course, which was given on the first day of class in September 2019, I asked students to rate their interest in a career in teaching or education on a scale from 1 (not at all interested) to 5 (extremely interested). The average was 3.2 out of 5, which suggests they were slightly more interested than not interested at the beginning of the year; yet it should be noted that only 2 out of 13 students (15%) who took the survey indicated that they were extremely interested. Their responses are demonstrated in Figure 6 below.

Figure 8: Education students' level of interest in the field of education as of September, 2019. N = 13.



This data suggests that an interest in the teaching profession is not a primary motivator for students applying to the LTA Program, and that students who enroll in my Education course also have varying degrees of interest in the profession. In addition to students' initial interest levels in the profession, I also wanted to explore how the experience of being an LTA impacts their interest in teaching as a career, as well as their ability to understand the complexity of the work.

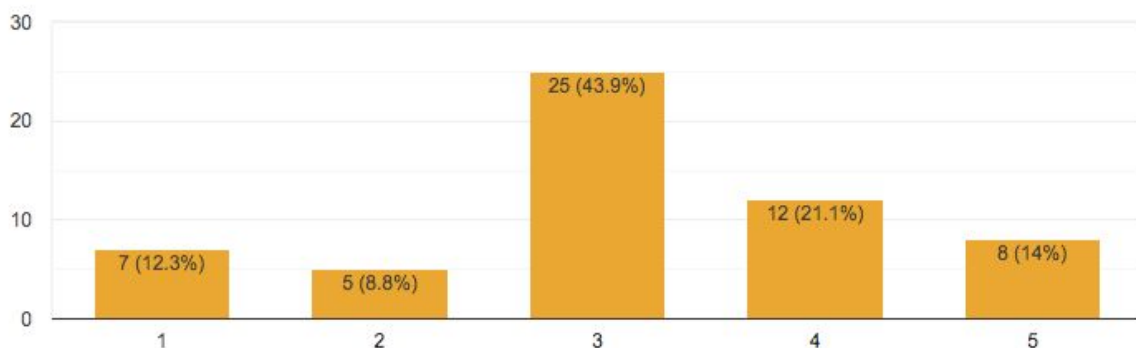
LTA Reflection #4, January 2020

At the end of first semester, LTAs were given the opportunity to complete a mid-year reflection and program survey. Of 112 LTAs, 57 responded. Below is a graph of their responses to the statement, "Being an LTA has increased my interest in teaching as a profession." They had the opportunity to rate this statement on a scale from 1 (strongly disagree) to 5 (strongly agree).

Figure 9: Student Responses About Interest in Teaching, January 2020.

Being an LTA has increased my interest in teaching as a profession.

57 responses



The average rating for this statement was 3.16. The most common response to the question was a 3, with 25 out of 57 or 43.9% responding with “neutral.” One student who rated this statement a 3 added an additional comment and said, “As far as being a teacher, I’m still very apprehensive, but this experience has given me more knowledge on how I would be as a teacher which is enough for me. Also being a TA has helped me understand how hard teaching is. I definitely respect my teachers a lot more.” There were some similar additional comments from students who responded with either a 1 or a 2, indicating that they disagreed or strongly disagreed. This group included 12 out of 57 or 21.1%, and three of these students left an additional comment explaining their response to this statement in particular. For example, one student wrote, “I love helping and teaching others ever since I was a kid, but medicine has always been my path.” This further supports the idea that students apply to this program for a variety of reasons, and are also impacted by the experience in a variety of ways.

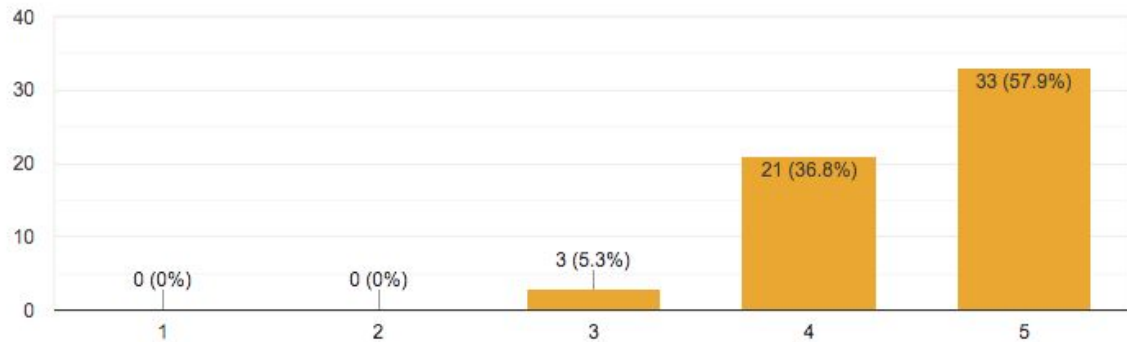
Twenty out of 57, or 26.1%, agreed or strongly agreed with this statement. Of this group, 13 had participated in at least one other professional development activity during the semester by either completing a reflection or participating in a peer observation. One student who rated this question a 5 added that, “I have learned a lot about myself and I have learned how to communicate better. I enjoyed shadowing another TA because it provided me a lot [of] insight.” This suggests that the peer observation that she participated in was perhaps part of her growth, and may be related to her increased interest in teaching.

Even though there is a bit of variety in responses about whether this experience has increased students’ interest in teaching, the vast majority agrees or strongly agrees that being an LTA has helped them better understand teaching and learning, as demonstrated by the graph below.

Figure 10: Student Responses About Understanding Teaching, January 2020.

Being an LTA has helped me understand more about teaching & learning.

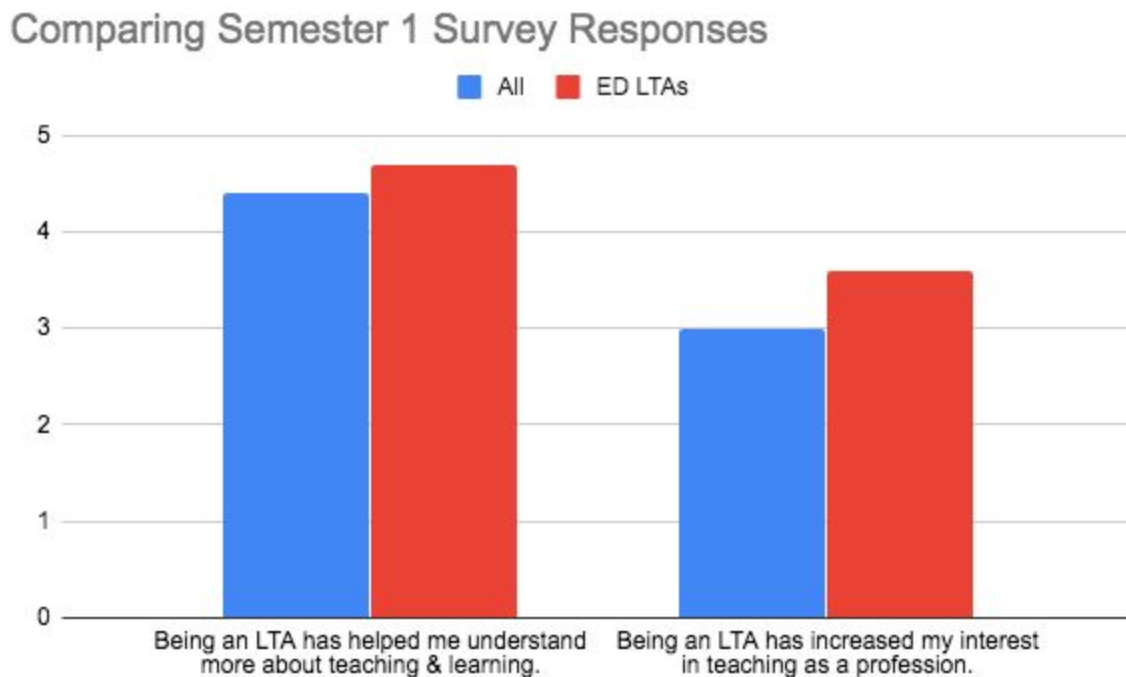
57 responses



There were no students who strongly disagreed or disagreed with this statement, and 94.7% either agreed or strongly agreed. This suggests that even if the LTA experience is not persuading a majority of participants to consider the profession, it is successfully giving them insight into the work of a teacher. This can have significant and positive consequences, as these students will hopefully carry this knowledge of and empathy towards teachers into the variety of professions they enter.

I was curious to also know how being my Education class may have impacted students' interest in and understanding of the profession. On average, the students in my class who responded to the semester 1 reflection had a slightly higher percentage of agreement with both statements about the profession when compared with LTAs who were not enrolled in the class. This trend is demonstrated in Figure 11 below.

Figure 11: Comparing Subgroups of Student Responses About Understanding of and Interest in Teaching, January 2020



It certainly could be the case that students who already had more of an interest in teaching were more likely to sign up for my Education class. Yet, as previously mentioned, only 2 of the students expressed an interest in teaching in her initial application to be an LTA. Therefore, it could also be true that having more opportunities to learn about and discuss teaching and learning may have also increased their interest in teaching.

As we continued to learn about the field of education during second semester, zooming out from our classrooms and examining education policy and the profession in a broader sense, I noticed that students' interests continue to evolve and mostly trend towards an increase in interest. LK, who at the beginning of the year identified nursing as her likely career path, has since decided to major in Education. She even changed her email signature to her name, followed by: "Future Teacher, Student & Fine Arts Enthusiast." Another student, SL, decided to minor in Education, and wrote on her final reflection:

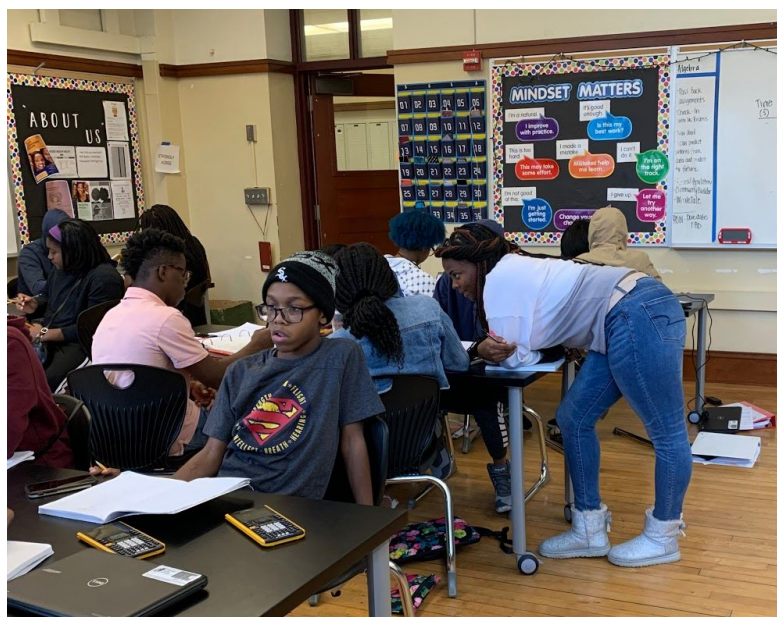
For me, personally, I didn't know that I would be very interested in education. I have been a TA for two years, and signed up for this class because it seemed interesting, and I assumed it would help improve my TA skills. However, after learning about the field, and being a TA, I am now minoring in Education in college, and have a greater interest in it.

This comment indicates that students' understanding of and interest in teaching can grow as a result of this program, and more specifically as a result of learning more about the profession.

Case Study: AC

In order to get a deeper understanding of these patterns, I will examine one LTA's arc in the program. During the 2019 - 2020 school year AC was a junior and an LTA for an 8th grade Algebra class. In looking back at her application from the previous year when she initially applied to the program, she wrote in response to the question about why she was applying, "I want to be a LTA because I feel like I can be very useful and help people more. I feel like I can make a difference." This response was coded as "desire to help others." She did not initially indicate that she had an interest in education as a career, and her response about why she was applying was comparatively not as thorough or passionate as other students in her cohort.

In the fall, I observed AC and her co-LTA at the request of their mentor, who asked that I stop by to see them in action since they were doing such a great job. I observed them the first week of November, right after the strike ended, and was so impressed by what I saw. When I arrived AC was writing a chart on the board to help demonstrate a concept that her mentor was explaining. She then explained the chart to the class, calling on students to help her fill it in. Once students began working on problems in groups, she circulated to different tables, staying for a few minutes to make sure they understood and clarifying as needed.



Around this time, I introduced peer observations as a support for LTAs. One teacher had requested a peer observation for her LTA who was struggling to find ways to be proactive. Having been so impressed by AC and TR, her co-LTA, I paired them up for a peer observation which occurred on November 18 and December 5.

In January, she completed the semester 1 reflection, and in response to the statement, "Being an LTA has increased my interest in teaching as a profession," she responded with a 5, indicating that

she strongly agreed. She also re-applied to be an LTA for the same course and with the same mentor again for the 2020 - 2021 school year. In response to the same application question about why she was applying, she wrote,

Being a LTA is important to me because I want to have a career in education. I feel like being an LTA helps me with that and gives me insight on what to look forward to and seeing how my mentor teacher is as a teacher. It teaches me about relationships and connections between a teacher and students and it gives me ideas on how I want to be as a teacher. I think that I should be chosen as a LTA again because I really care about the students and their well being as well [as] their learning abilities. I want to see the students do their best while being their best.

This response was coded as interest in teaching as a career, interest in working with a teacher, and desire to help others. This response is also notably more in depth and passionate than the response she gave when she initially applied to the program last year.

I also had the opportunity to meet with AC one on one in February; this was one of the supports she requested on the semester 1 survey. I started this meeting by asking, "What would you like to talk about today?" She responded by telling me how much she loved being an LTA, and in particular working with her mentor. She also said that this experience has changed her mind about being a teacher. She said, "At first I wanted to major in business and maybe minor in education, but recently I switched it. I want to major in Education. I realized I wouldn't be happy if I didn't work with kids in some way." This supports her rating on the survey of "strongly agree" in terms of how this experience has increased her interest in the profession. She also mentioned that because of this, she was planning to sign up for my Education class next year.

AC's evolution is significant for a number of reasons. First of all, she would not have initially stood out as someone who was applying to the program because she was interested in teaching as a career based on her application. However, the experience changed her perspective and made her realize that this was in fact a career she was interested in. Based on my meeting with her and her explanation in her re-application for next year, it seems like an important part of this realization was her mentor as well as the relationships she has built with her students. This further emphasizes the importance of having passionate and supportive mentors. This also suggests that students' initial reasons for applying do not necessarily dictate or limit what they will get out of the experience; therefore it is important to continue to check in with LTAs to understand what they need and what their goals are throughout the year.

Sub-Question #4: What happens to my growth as a teacher, a mentor, and coordinator of this program?

The process of doing this research and having the opportunity to analyze data on the program from various perspectives has had a significant impact on me as a teacher, mentor, and coordinator of the program. Taking a critical eye to my Education curriculum enabled me to reflect on what to keep and what to adapt for next year based on which lessons and units were most effective in supporting students' growth. Through my observations and interviews with other mentors, I gained new ideas about how to improve as a mentor myself. Perhaps most importantly, I have gained both a deeper and a broader understanding of what this program means to LTAs and mentor teachers, as well as what it looks like across various departments. By reading and analyzing students' applications and reflections in more depth, and with a different purpose, I have strengthened my relationships with the TAs, and also learned how important these relationships are.

My Growth as a Teacher

As I mentioned in my rationale, one of my curiosities going into this year was related to the curriculum I am developing for my Education class. After my first year teaching the course I found it very challenging to create a class that would support LTAs across such different teaching contexts; those contexts were even more diverse this year since I had double the number of students in the class as I did last year. I remained skeptical about the choices I was making related to the texts and ideas I was drawing on, and whether they were relevant to each of my students. In reflecting back on this I find it interesting that I was so focused on and concerned with the *what* instead of the *how* of this course.

Months later while analyzing my data and writing up my findings for this research, I was struck by a particular comment on one of my Education student's lesson reflections. In response to what she had learned from teaching her unit 3 and unit 4 lessons in our Education class, TJJ wrote: "choosing something from the book was more of a challenge. Mainly because I had the concept of what it means to "teach" wrong. As soon as my misconceptions were cleared up I was able to find something to teach." She is referring to a conversation between her and I in class while she was working on her lesson plan, during which she expressed concern that she wasn't sure "what to teach." I remembered this interaction and looked back at my teacher journal to see what I had written about this interaction. On January 3, 2020 I wrote:

When I was chatting with [TJJ] about her upcoming lit circle lesson, she mentioned something along the lines of, "but what am I supposed to teach them?" the goal of the lit circle lessons is for students to plan a lesson around a section of the book they are reading, in order to better understand how it demonstrates themes of adolescence. She is very into the book (*I am Not your Perfect Mexican Daughter*) and had identified 3 - 4 specific instances in the book that interested her - but seemed concerned that this wasn't enough to plan a lesson around because she wouldn't be teaching anything new. I told her to shift her perspective a bit - and reminded her that teaching is more than just imparting information; it is also (and perhaps more importantly) providing structured opportunities to better understand a concept or idea.

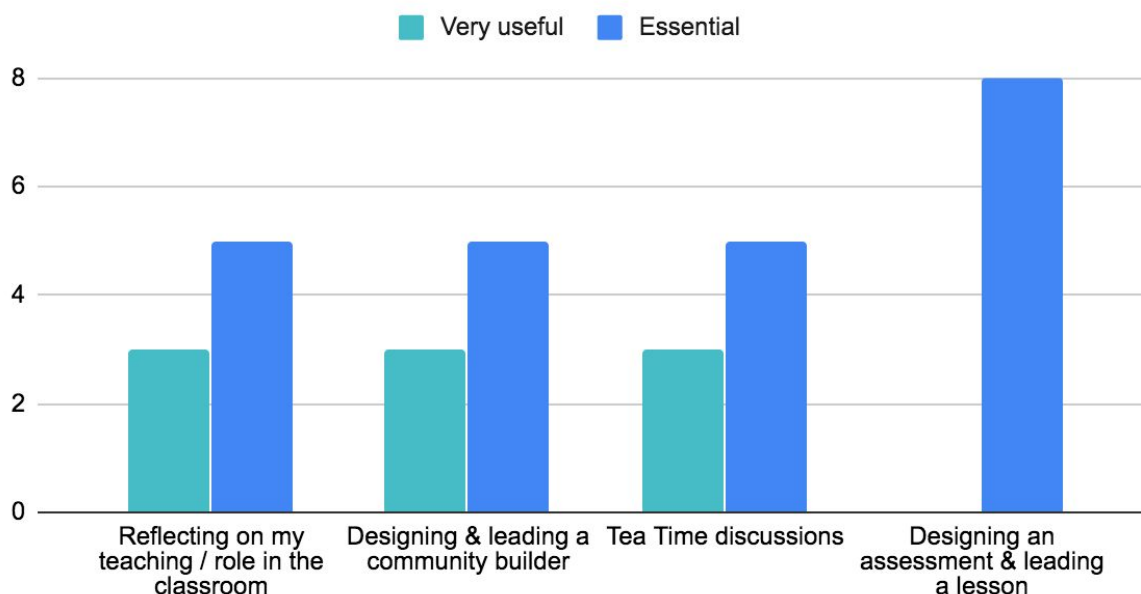
TJJ's epiphany mirrored one of my own biggest takeaways from this research; it appears that initially I, too, had the concept of what it means to teach a little bit wrong. I initially thought that the best way I could support LTAs in their growth or proactivity in my Education class was by expanding their "teacher toolkit," or providing them with specific strategies or pedagogical moves that would empower their teaching. This was most likely influenced by my own love of pedagogy and lesson planning, and the fact that these were tools that had helped my own growth as a young teacher. Through this research though I learned that while this may be helpful for some, the most beneficial thing I could do to support my students' growth as teachers, and increase their potential interest in the profession, was simply to provide more opportunities for them to *teach*.

This finding was supported by insights from mentors and LTAs across grade levels and departments, as well as by my Education students themselves. On a course survey, they had

the opportunity to rate various class activities in terms of how useful they were in helping them to better understand teaching and learning and support their work as an LTA. Eight students completed the survey. I listed 14 activities to be rated as either: I don't remember, not useful, somewhat useful, very useful, or essential. Of these 14, there were 4 activities that received only "essential" and "very useful" ratings from all students who completed the survey. Reflecting on teaching, designing and leading a community builder, and tea time discussions were all rated very useful by 37.5% of the students who responded, and essential by 62.5% of the students who responded. One hundred percent of the students who took the survey rated designing an assessment and teaching a lesson as essential. These results are demonstrated in the figure below.

Figure 12: Education students' ratings of most effective class activities.

How useful were the following in order to better understand teaching and learning & support your work as an LTA?



Two of the top four highest rated activities involved some level of planning and teaching, and the other two involve discussing or reflecting on teaching. In contrast, "readings related to teaching and learning" was rated essential by 25% of the students, very useful by 62.5%, and somewhat useful by 12.5%. The only activity to be rated essential by all students was arguably the most challenging, as well as the most reflective of the complex nature of teaching. For this assignment, students had to select a skill or piece of content to teach, write leveled scoring criteria for it, create an objective that aligned with what they wanted to teach, backwards design learning activities, teach their lesson, and collect evidence of their students' learning. Then, they had to complete an in depth reflection on all aspects of this process. This was certainly more challenging and time consuming than the course readings, yet it was apparently also the most useful to them. Because LTAs experience most aspects of teaching in small doses in their

classrooms, I wonder if having the opportunity to do all of these aspects at once is what made it most meaningful. Perhaps it was also that they got to design a lesson about anything they wanted, and this freedom to choose something they were passionate about made the experience more meaningful as well.

Next year, I will continue to refine the readings I assign and be purposeful and thoughtful about the ideas and strategies I introduce to my Education students. Yet my analysis of this data strongly suggests that opportunities to plan and teach, followed by opportunities to reflect and discuss with their peers, should remain the focus of the course. Knowing this will also greatly inform my work as a mentor and coordinator.

My Growth as a Mentor

As a mentor, I have grown most from discussing with and getting to observe other teachers and their TAs in action. During my free periods, I sat in over ten classrooms with LTAs this year, and each time I observed something that gave me an idea of how to be a better mentor to my LTA, or simply gave me a sense of how different this role can look. Most significantly, I remember being in AE's classroom in November and seeing how seamlessly her LTAs (including AC, whose evolution in her interest in teaching is explained above in sub question 3) were part of the class. They were not told or asked to do things, they just did them, and did so confidently. Even when AE was explaining something to the whole class, I remember AC chiming in with an additional thought. I was most impressed that this was happening so early in the year, and seeing this really challenged ideas I had about how to "build towards" giving my LTA more responsibilities. I had previously worried about "throwing them in too quickly" or asking them to do something they weren't "ready" for. One year I even made a week by week plan for how to gradually increase their responsibilities in the classroom. I realized during that observation that maybe I was holding my LTAs back. I wrote in my teacher journal later that week: "maybe our LTAs are sometimes not proactive, or don't see themselves as teachers, because we don't give them the opportunity to be. Maybe we just need to get out of their way more often and create space for them and their voices in the classroom."

This realization sparked several new ideas for the program, including peer observations for LTAs, and it also fundamentally changed my mindset as a mentor this year. I taught AKE two years ago in her 10th grade year and was thrilled to have her as my LTA in the 2019 - 2020 school year in my Global Civics class. She did a wonderful job building relationships with students from the beginning of the year; cultivating respect and rapport was definitely her strength. Yet by November, she was not necessarily leading activities or jumping into class activities in the same way that I had observed AC and TR doing. My observation had prompted me to think less about what she was doing too little of, and instead consider what I might be doing too much of; I decided to step back a bit and see what happened. I asked her to design and lead a warm up, followed by a mini lesson a few weeks later. I was also more mindful about asking for her input on lessons, and stopping to include her voice and perspective during class. I could tell she was a little apprehensive at first, but she grew so much from these experiences. I could see the students not only being drawn to her as a peer, but looking at her more like a teacher. At the beginning of second semester I had to miss two days of class, and she stepped

in and taught both 100 minute lessons on her own. The students commented that class ran smoothly and they really liked being taught by AKE. I'm not sure if this growth would have been as pronounced, or if AKE would have had so much confidence leading these lessons, if I had not made space for her earlier in the year. I will certainly carry this forward as a mentor next year.

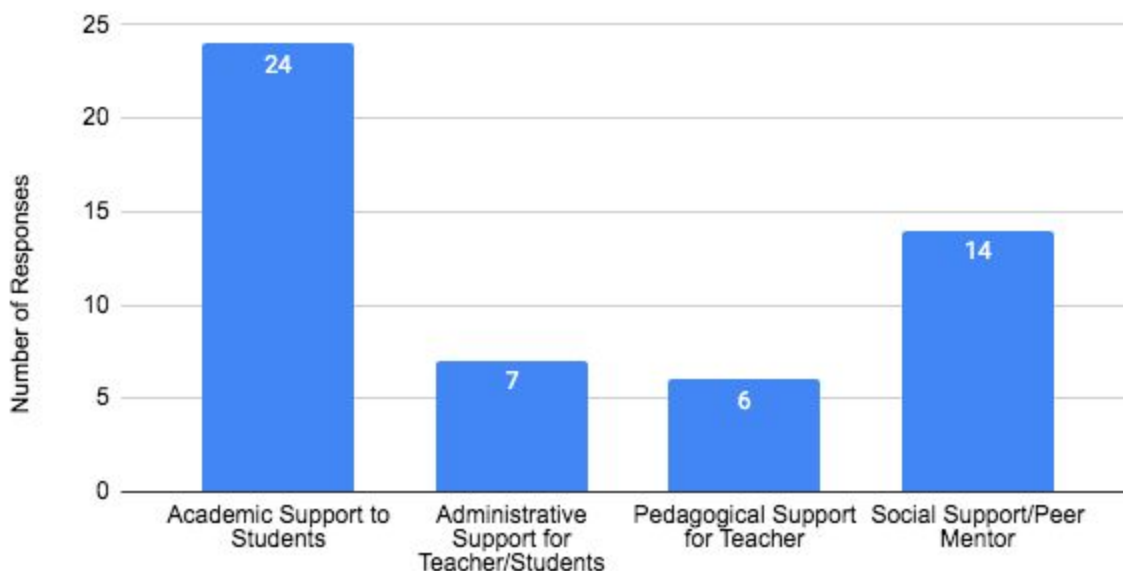
My Growth as Program Coordinator

I am so grateful that this project provided me with an opportunity to connect more deeply with LTAs and other mentors; not only did this provide me with fresh ideas for how to improve as a mentor it also provided me with insights on what is working and where we need to grow. As with any program that spans across multiple classrooms and departments, it can be difficult to spot trends at the micro level. The importance of having a birdseye view and collecting data was made clear when I first began familiarizing myself with this year's LTA cohort at the beginning of the year and noticed a stark gender imbalance. Only 12.5% of the 2019 - 2020 cohort of LTAs were male; the remaining 87.5% were female. Our school is about 60% female so having more female than male LTAs is perhaps understandable, yet such a stark gap in representation is not. It is also my responsibility as program coordinator to detect and address such gaps. Thankfully, after making teachers aware of this and suggesting that they be mindful of it while encouraging students to apply for next year's cohort, the gap has narrowed. The percentage of male applicants increased, which in turn increased the size of the cohort. The 2020 - 2021 cohort includes 160 LTAs, up from 112 the previous year, and the gender breakdown is much more reflective of our student population.

This realization, which occurred early in the data collection process, made it clear to me that I had to get to know the individual experiences of mentors and LTAs while also keeping the big picture in mind. The mentor survey and follow up interviews were a fantastic opportunity to gain a deeper understanding of individual experiences while also analyzing trends. In response to the question on the mentor survey, "In what ways did having an LTA benefit you or your students this year?" four major themes emerged.

Figure 13: Coded responses from mentors about benefits of having an LTA.

In what ways did having an LTA benefit you or your students this year?



Twenty four of 25 teachers mentioned some type of academic support. This included answering students' questions, posting resources on google classroom, hosting review sessions, or giving feedback to students on their work. NR's comment was typical of this type of response; he wrote that the most significant benefit to his students was, "having another person to ask questions to in the classroom. I always feel like I can't get to everyone in the class, so it was great having someone else supporting students. And I could really trust my LTAs to do that this year." A few other teachers mentioned that having an LTA available to support students also enabled them to provide more focused support to students.

The next most frequent theme was related to LTAs providing social support for students or acting as a role model. Fourteen of 25 teachers mentioned this benefit, and it was slightly more common for mentors with younger students (7th - 10th grade) to mention this. In reference to the bonds that his LTA was able to make with his 8th grade students, IP commented, "[she] was able to build good connections with students that resulted in trust. Students were willing to come to her when they didn't want to talk to me about social issues." Other mentors mentioned their LTAs being positive role models for the specific discipline of the course as well.

In addition, 7 out of 25 mentioned how helpful their LTAs were in terms of administrative support for them or their students. This included taking attendance, creating seating charts, checking homework, and checking in with students who are absent from class. This benefit was always mentioned alongside another benefit or contribution, meaning that no mentor feels that this is the only or even most significant benefit of having an LTA.

One of the most interesting benefits identified by 6 out of 25 teachers was a pedagogical benefit to their teaching. This included references to how LTAs helped them reflect on their own practice or pushed their own growth as a teacher. For example, NC explained, "They helped

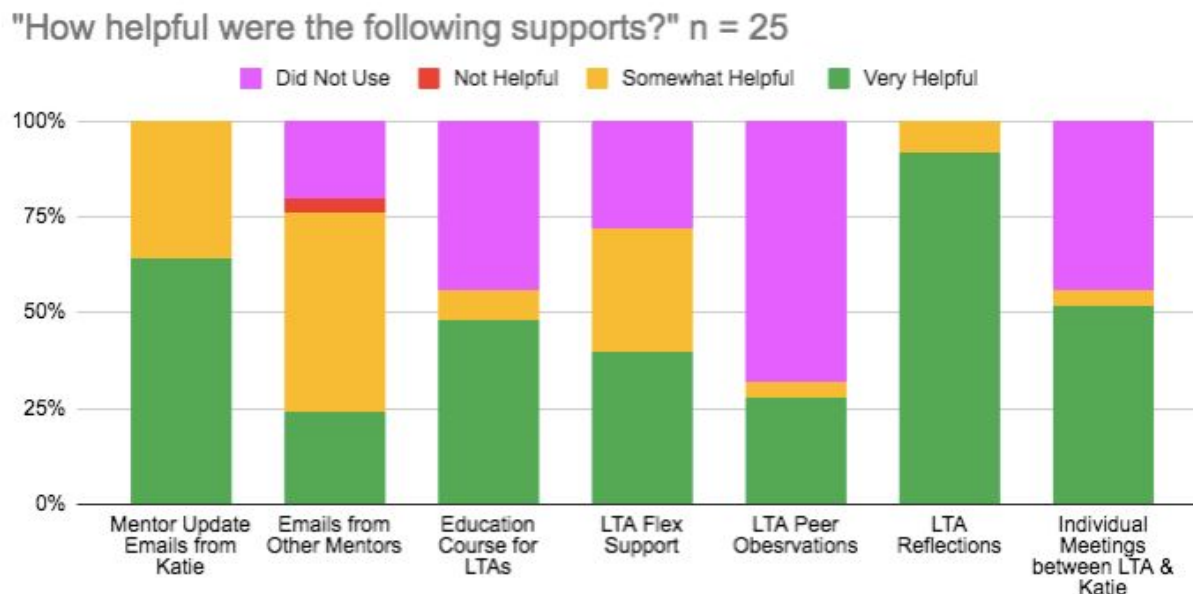
grade MC quizzes and gave me summaries of questions students struggled with and which students I needed to hone in on for more interventions.” This type of data analysis is not only helpful to the mentor, but also likely helped the LTAs reflect on student learning. WE wrote, “I was able to learn good teaching by observing my TA. [...] I was able to remind myself of good teaching habits by communicating them to my TA. Giving feedback to my TA encouraged critical thinking of my own teaching habits.” This insight is especially meaningful since it suggests that the benefit of having an LTA may last beyond the specific year of mentorship.

Reading and analyzing these responses have significantly deepened my understanding of the mentors and their experiences within this program. It also suggests that the program is beneficial to both LTAs and mentors. The fact that the mentors identified such a rich variety of benefits, and none of them focused solely on administrative tasks, suggests that this initial vision of the program is being upheld (at least by the mentors who responded.)

In addition to the benefits, I also asked about the greatest challenges of mentoring an LTA. These responses varied a bit more and often reflected circumstances specific to the mentor. For example, some mentioned a challenge related to a particular student or personal challenges such as balancing other professional responsibilities with supporting their LTAs. Eleven out of 25 mentioned something related to “finding meaningful ways to incorporate their LTAs.” Others identified challenges including holding LTAs accountable, giving meaningful feedback, finding time to meet, and having too many LTAs to manage. These responses revealed another significant learning from this survey: the needs and challenges of each mentor will vary each year, and it is important for me to provide opportunities for them to share these challenges and seek advice. This is in line with a suggestion earlier in the year from MB, who mentioned that individual check ins with mentors will help gather more specific insights on what people need. At the beginning of this year I assumed that mentors “knew what to do” and didn’t want to burden them with a meeting. These varied responses about challenges, along with what I was able to learn through follow up interviews, suggest that all mentors want to be doing more and have goals related to being a mentor. My ability to continue to check in with, observe, and support them will hopefully continue this growth.

Lastly, on the mentor survey there was an opportunity to rate 7 different supports I offered this year in terms of how helpful each was. They had the option to rate each as: Very Helpful, Somewhat Helpful, Not Helpful, or to indicate “I/My LTA did not use this Support.” A visual summary of their responses is below.

Figure 14: Mentor Ratings of Program Supports



There were two of the seven supports listed that every mentor used: email updates from the coordinator (me), and google form reflections for LTAs to complete throughout the year. Nine out of 25 mentors (35%) identified that the update emails were somewhat helpful, while 16 out of 25 (65%) identified them as very helpful. No mentors indicated that they were not helpful. Through my follow up interviews, I feel like I learned a bit about what could make these email updates more useful. For example, a few mentors mentioned that it was helpful to have reminders about entering grades for LTAs. Two out of 25 (8%) indicated that the google form reflections were somewhat helpful, whereas the remaining 23 mentors (92%) indicated that they were very helpful. This was a support that was implemented at the request of a mentor during a meeting earlier in the year, and I was glad to see that the vast majority of mentors found this support helpful.

Eight of 25 mentors indicated that their LTA participated in a peer observation, and seven of these eight (87.5%) rated this as "very helpful." It is also important to note that this support had the highest number of mentors (17 out of 25) who indicated that their LTA did not use this support. This could be due to the fact that these were not introduced until November, yet I wondered how I might make this support more accessible next year. During the follow up interviews, some mentors indicated that it would be helpful to have access to a master spreadsheet of LTA placements so that they could more easily arrange peer observations. A few others also discussed the possibility of second year LTAs being available for observation earlier in the year, so that new LTAs could learn and get ideas.

Although not all mentors completed the survey or follow up interviews, these data sources provided me with a variety of new insights about mentors' experience in the program. Understanding the experience from the LTAs' perspective was a bit more challenging since there are about three times as many LTAs as mentors, yet this was also one of the most enlightening parts of this research. One helpful data source was their applications, which shed

light on the goals and motivations they entered this year with. As previously mentioned, I analyzed students' applications to the program for the 2019-2020 school year and coded their responses based on common themes. Most responses were coded for multiple categories, and there was also some overlap between categories at times. Below is a table of example responses for each coding category.

Table 2: Example Coded Responses for “Why are you applying to be an LTA?”, 2019 - 2020 Cohort

Coding Category	Example response
Desire to help others (70 / 110; 64%)	I am applying to be an LTA because I love to help people with work. It makes me feel really good inside when I actually help someone with concepts that they are struggling with. JB, Science LTA
Opportunity for personal growth (37 / 110; 34%)	I hope to gain more leadership and speaking skills, I want to learn how to impactfully lead and help other people and get over my fear of public speaking. MP, English LTA
Desire to be a role model / positively impact Lindblom community (36 / 110; 33%)	A lot of times guys are discouraged to sing and if they are it is really hard singing for guys who are just starting so I would love to help boys through that process just like I received aid. [sic] DM, Fine Arts LTA
Passion for course / content (28 / 110; 25%)	I want to be an LTA for AP Psych next year because the class' content and the environment make me excited to learn and apply it for myself. AA, Social Science LTA
Interest in the field of education (25 / 110; 23%)	I am applying to be an LTA to explore the career of teaching. I feel like when I grow up in life I want to be in a teaching field and this opportunity will put me on the right path. AC, Fine Arts LTA
Experience could be beneficial for the future (17 / 110; 15%)	I believe this program really prepares you for your future by building leadership skills, responsibility skills, and in all preparing you for the real world. KW, English LTA
Inspired by other LTAs (13 / 110; 12%)	I am applying to be a LTA because I like helping students out in and out of class. Ever since I have been at Lindblom LTAs have always been very helpful for me in and out of class as well. The times that I didn't have LTAs I struggled a lot [in] those classes. To me LTAs are great assistants to the teachers. Not only are they helping with the subject but as well as the experience at Lindblom. I would like to [be a] part of that. AC, Science LTA

These sample responses demonstrate the spectrum of motivations that students enter this experience with. As previously mentioned, “interest in the field of education” was not the most common reason for applying, and was in fact the fifth most common response. The most

common reason stated in the application was a desire to help; 70 out of 110 responses, or 63.6%, were coded in this category. The word “help” appeared 198 times across the 110 applications. This was most commonly framed as a desire to help students understand or just to be a general sense of support in the classroom. For example, TN wrote, “I am applying to be a LTA because I would like to help students in a subject that I am strong and passionate in.” There were some students who also expressed a desire to help teachers. JM was re-applying to the program for a second year and expressed a desire to help both students and teachers. She wrote,

I was an LTA this year, and I enjoyed being able to effectively help students learn about some of the subjects that I love. I find it very fun to teach students the things that I have learned before them, and I enjoy offering my help to teachers who may have taught me before.

If students expressed an additional more specific way that they imagined impacting their students or specifically mentioned a desire to explore teaching, their response may have also been coded as “desire to be a role model” or “interest in the field of education.”

There were 36 responses (32.7%) that were coded as “desire to be a role model or positively impact the Lindblom community.” Most of these included some type of recognition of being in younger students’ shoes and a desire to guide them through challenging courses. Some also mentioned being a social support as well as an academic support. For example, JR wrote,

I have been in their place 4 years ago, and I have been through many of the experiences and struggles they will encounter academically and in the new school environment...I would be able to offer them my academic skills, my advice, and friendship.

Similarly, DF wrote, “as an LTA I can create a safe classroom space and model good behavior for the students I am working with.” These students are clearly thinking of their role as more than just an academic support and eager to help students socially and emotionally as well. One student (DW) even mentioned how as an LTA, he hoped to “allow for the overall school community to become more family like.”

About one third of applicants (37, or 33.6%) mentioned that being an LTA would be an opportunity for personal growth. This ranged from wanting to improve their public speaking to wanting to expand their leadership abilities. Often this was mentioned in conjunction with one of the other categories. For example, EDY wrote about personal growth in the context of her interest in a career in education, explaining that,

I am applying to be an LTA because I am interested in furthering the few leadership skills I already have, I am also interested in becoming more social. In the future, I would like to potentially go into the teaching profession, and I don't think I would be a very good teacher if I was not able to effectively communicate with my students. I feel like if I start developing those skills early on, I will be better at communicating in the future.

Similar to EDY, several other students in this category mentioned how being an LTA will help their communication skills or push them out of their comfort zone.

One of the most meaningful parts of analyzing these applications was seeing how many students mentioned the impact that previous LTAs have had on them as a motivation for

applying. Thirteen out of 110, or 12%, mentioned being inspired by a former LTA, and the majority of them said that they wanted to have a similar impact. CW wrote,

I want to be an LTA for the Academic Center because they're new kids, being a high schooler helping and working with the Academic Center helping connect the gap and enhance the LMSA community by bringing the 7th and 8th graders together with 9th graders and up. When I was an Academic Center student I had an algebra math LTA and she worked so well with us and it made me feel great knowing the older kids cared about us. I want every Academic Center student to feel the same way I did.

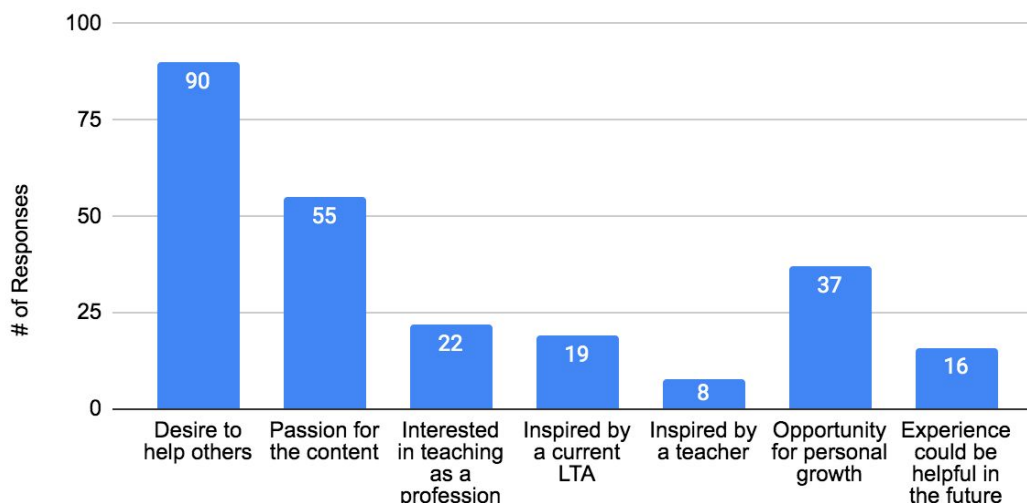
As an eleventh grader applying to the program, this student still remembers the impact of her LTA when she was in eighth grade. Even though this was not one of the most frequent motivations cited for responding, it was powerful to see the long lasting impact LTAs can have on our students. It also is an important reminder that current LTAs are setting an example for future LTAs; it is essential to ensure that they are supported in making the most of this experience.

I first read through these applications in the winter of 2018. I was in my first year as program coordinator, and it was the first time I was overseeing acceptances into the program. I remember agonizing over the decisions and second guessing whether my instincts about whether each student would be a good fit was in line with the expectations and desires of the mentors and department representatives. Reading them through a second time with a different purpose - to get a sense of the variety of motivations students enter this program with - was a completely different experience. It was also fascinating to re-examine these after having had a chance to see them in action as LTAs. Some phenomenal LTAs this year did not necessarily stand out from others in their application, and some grew in ways beyond what they identified as their reason for applying. These applications therefore demonstrate the vast variety of goals that students enter this program with, but also just a starting point for what they could get out of it.

Because the experience was so insightful and allowed me to get to know each of the LTAs, including those who are not in my Education class, had not attended orientation or flex, and had not completed reflections (and are therefore not represented in this data analysis in other ways), I decided to also code the applications for the 2020 - 2021 cohort. Below is a figure of their coded motivations for applying.

Figure 15: Coded responses for LTA applications, 2020 - 2021 cohort. N = 160.

Why did you apply to be an LTA?



Reasons for Applying. NOTE: Some responses were coded for multiple reasons.

The 2020 - 2021 cohort appears to be somewhat similar to the 2019 - 2020 cohort, since “desire to help others” is the most commonly identified reason for applying. The word “help” appears 303 times across 160 responses. Interest in teaching as a profession is still not the most common motivation for applying, however through my research this year and in particular from AC’s journey I know that this interest can grow. I also know from NH’s story that reflection and peer observation can be powerful tools for empowering a student with ideas for how to proactively help. LT’s growth and transformation reminds me that all of these students have the potential to develop confidence and a teaching practice of their own - “they just need chances to lead.”

Conclusions

There were several limitations and challenges that I encountered while conducting this research. First and foremost, the 11 day teacher strike in October, 2019 as well as the transition to remote learning in March, 2020 through the end of the school year reduced the amount of time LTAs were in the classroom. I also was not able to continue to conduct flex support classes or peer observations for LTAs after mid-March, and had to adapt certain other data collection methods to a remote learning environment. Additionally, for the reflections, surveys, and interviews, I was not able to connect with and receive insights from all mentors and LTAs in the program. Therefore this data only represents part of the experience, and I remain committed to building relationships with all mentors and LTAs so that I can continue to expand my understanding of the needs and strengths of the program.

Nonetheless, I am left with many valuable conclusions as a result of this work. First and foremost, the process of conducting and analyzing this action research helped me to better understand the program and all of its moving parts. It motivated me to get into more classrooms to observe, try out more supports and interventions, have more conversations with LTAs and mentors, and reflect on my own vision and potential biases I may be bringing into my role. Most significantly, I've thought a lot about myself as a mentor and identified ways that I want to grow and better support my LTAs. I also have examined some of my beliefs about what "good teaching" looks like, and reflected on the root of these beliefs. This work will hopefully ensure that I continue to be mindful about which beliefs I bring into my role as coordinator and education teacher, and the potential impact of this.

I initially began this work eager to discover how I could support LTAs in becoming more proactive. The data suggests that our LTAs can increase their proactivity in the classroom, and also that there are a variety of other ways that they grow through this experience. Opportunities to collaborate with, observe, and discuss with their peers appeared to be powerful tools for this growth, and having a variety of supports available for LTAs and mentors was helpful since the motivations and strengths of each LTA vary. Despite this variety, the data strongly suggested that opportunities to take on an active role in leading activities and teaching were most impactful for encouraging student growth and proactivity. This was especially evident for students in my Education class.

Additionally, this data suggests that interest in a career in teaching is not the main motivation for students who apply to this program, however the experience does effectively expose students to the profession who wouldn't otherwise consider it. It also significantly improves their understanding of the craft and complexity of teaching. This has important implications for schools and districts who are interested in addressing the underrepresentation of people of color in the teaching profession. More research would need to be done to know the exact numbers, yet we are aware of several LTAs who have gone on to pursue degrees and careers in education. One of these students responded to the initial survey sent to former LTAs and described how her experience as a TA has informed her experience at UIC, where she is working towards her degree in Teaching of History. AD wrote:

I feel the LTA program really prepared me for what I could face in my own classroom. It taught me how to better explain myself, how to deal with so many people at once, learning how to navigate switching things up last minute, making split second decisions, etc. [...] I feel those that are really interested in teaching or really interested in working on leadership or responsibility skills should join the program because it just provides someone with so much knowledge and experience I'm not sure one would get unless they were student teaching for the first time in college.

I look forward to continuing to expand and support this program, and also to one day working alongside and learning from some of my former LTAs.

Next Steps & Policy Recommendations

This research will inform many of my next steps as a teacher and as LTA Program coordinator, including:

As an Education Teacher, I will:

- Continue community builders, lessons, & “tea time.”
- Invite more guest speakers & expand opportunities to explore pathway to & within careers in Education.

As LTA Program Coordinator, I will:

- Share these research findings with our staff.
- Update program expectations and create quarterly guidelines for mentors.
- Continue and refine reflections and opportunities for peer collaboration & observation.
- Create a formalized leadership role for 2nd year LTAs.
- Continue to build relationships to understand individual needs of mentors & LTAs.

I also have recommendations for CPS, or other districts interested in developing their teacher pipeline or “grow your own” programs. This data suggests that our teacher apprentice program has increased interest in the profession by exposing students to the challenges and benefits of the work. Even for students who are unsure of their career goals or planning to pursue other paths, there are nonetheless a variety of other positive outcomes revealed through this study, including:

- Increased understanding of the teaching profession and the complexity of teaching
- Opportunities for personal growth for students
- Expanded student leadership voice and in the classroom
- Opportunities for teachers to reflect on our pedagogy

For any school that is interested in creating such a program, I would recommend that they start small. A huge amount of the success of this program is due to Molly’s careful selection of LTAs and mentors in the first year or two of implementation. This allowed her to create a shared vision for the program, and to ensure that the first cohort of LTAs and of mentors were setting a high expectation of the responsibilities of each role. She was also able to fine tune the application process and design supports for LTAs based on emergent needs. So much of what I was able to do over the past two years since stepping into this role was made possible by the strong foundation she laid along with inspiration I drew from her work and vision.

A second recommendation would be to have a dedicated position of coordinator, and to have a release period or some other time reprieve for this person. I teach four classes instead of the typical five at my school, and if I did not have this additional time it would be very difficult to create and implement supports for LTAs, communicate with mentors, and facilitate the application and interview process. It also allows me time to collect and analyze data about the program, and ensure that it is fulfilling its mission.

Lastly, and perhaps most importantly, the apprentice model is an essential component of our program's success; anyone looking to replicate this success should ensure that they are empowering apprentices (not assistants.) As Molly explained, this means "they are doing the work at a smaller scale until they can do it at a bigger scale. They are always doing the work - from the first day - they are learning the craft of teaching." She also mentioned the benefits of this model for teachers, explaining,

by unfolding the craft, both people should be changed by the experience. If I'm saying out loud, 'this is why I'm doing this,' and then the student and I can have a conversation about it, then we are both changed. The mentor should be a better teacher by the end of it - more thoughtful, understanding of how to teach today's student.

Many teachers, schools, and district officials are currently considering how to create more equitable learning environments; I believe a teacher apprentice program has the potential to address this in both the short and the long term.

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