



ABOUT LEANLAB EDUCATION

LEANLAB Education is a nonprofit research organization that helps schools understand and solve their biggest problems. We listen to parents, educators, and students to help them pinpoint specific problems that hinder student achievement. Then, we match those schools with education entrepreneurs. Together, they develop the next generation classroom tools through research and direct, community feedback.



RESEARCH TEAM

Erin Huebert, Ph.D. LEANLAB Education

Trisha Callella, Ed.D. LEANLAB Education

SCHOOL TEAM

Karnissa Caldwell LEANLAB Education

Andrea Cook LEANLAB Education

Jorge Holguin LEANLAB Education

GRAPHIC DESIGN

Alexander Sheppard LEANLAB Education

OVERVIEW

LEANLAB partnered with two schools within the Kansas City Public Schools District to study the feasibility and impact of Classcraft - a digital tool designed to manage student behavior in the classroom by providing behavioral insight and promoting intrinsic motivational support that builds a collaborative and engaged school culture. Longfellow Elementary School and Northeast Middle School were matched with Classcraft because social-emotional teaching and learning are key priorities for the district and teachers are looking for innovative ways to promote positive behavior and school climates.

STUDY PURPOSE

Feasibility

Assess the feasibility and utility of Classcraft for teachers and students in the classroom.

Research Questions

- How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements? What went well and what barriers remain? What value does Classcraft bring to teachers?
- How well can students navigate Classcraft and what value do students see in Classcraft?

Methodology

- All teachers and staff at both schools were invited to attend a 60-minute training session led virtually by a Classcraft training specialist. Ultimately, the following sample of teachers opted to participate in the study:
 - ° 8 Teachers at Longfellow
 - ° 47 Teachers at Northeast
- Teachers were instructed to use Classcraft in a way that was most suitable to their style of teaching, interest level, and capacity. Thus, some teachers progressed further through Classcraft chapters than others. A LEANLAB school team member was available to answer questions, help troubleshoot, and liaison with the Classcraft team.
- After 4-5 weeks of implementation, all teachers took part in a 45-minute focus group with a LEANLAB researcher. In total, 13 focus groups were conducted with 38 teachers (overall response rate of 70%):
 - ° 8 teachers at Longfellow (100%)
 - ° 30 teachers at Northeast (64%)

STUDY PURPOSE

- At the end of the focus groups, LEANLAB research and school teams gave advice on implementation based on strategies they have heard from others that are going well and encouraged teachers to continue to use Classcraft as best they could and in a manner suitable to them.
- At the end of the semester, all teachers were invited to complete a survey that asked follow-up questions on the persistent strengths and barriers of Classcraft implementation, their opinions on the value of Classcraft, and their recommendations for product enhancements. 32 teachers completed the survey across both schools for an overall response rate of 58%.
 - ° 7 teachers at Longfellow (88% response rate)
 - ° 25 teachers at Northeast (53% response rate).

STUDY **PURPOSE**

Correlational (Impact): Investigate potential relationships between Classcraft and a) teacher self-efficacy for

fostering SEL and b) student behavior.

Research Questions

- What is the relationship, if any, between use of Classcraft and teacher self-efficacy for fostering social emotional learning?
- What is the relationship, if any, between use of Classcraft and student behavior?
 - Student behavior was measured with discipline referrals and student survey selfevaluations

Methodology

In order to assess the correlation between Classcraft usage and teacher/student outcomes, the following data was collected:

- Teacher Classcraft Usage: Total number of points given over the semester
- Student Classcraft Usage: Time-series, cross-sectional data (daily at the student level) on number of points received and number of levels earned in Classcraft over the course of the fall semester
- Teacher Self-Efficacy: All teachers were given a pre-survey at the end of August before implementation of Classcraft began and a post-survey at the beginning of December. The purpose of the surveys was to assess change in teacher perceptions of their self-efficacy for fostering SEL as well as their opinions on school culture.
- Student Behavior: 1) time-series, cross-sectional data (daily at the student level) on discipline referrals, 2) student pre- and post-survey to assess student selfidentification of behavior, and 3) teacher pre- and post-survey to assess change in teachers' perceptions of student behavior

FINDINGS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Overview

Overall, teachers and school leadership at both schools remain excited about the potential of Classcraft but struggle to find ways of consistently implementing it.

While Longfellow teachers noticed the changes Classcraft made over the summer to make it easier for teachers to navigate the tool, the changes were not sufficient in helping teachers manage and integrate the tool into their classroom routines on a regular basis.

Teachers need more technical training on how to use Classcraft in the initial training session as well as guidance and examples from other teachers on how to integrate it on a day-to-day basis. For all teachers across the two schools, it was still too time-consuming and challenging to give points on a consistent basis.

Teachers understood the importance of intrinsic motivation but found that most students still wanted something tangible and schools struggled to effectively integrate Classcraft points with new or existing rewards systems. Likewise, students are adamant that there be more "things for their characters to do" in Classcraft and desire games and/or ways for students to interact with each other within the platform.

At this moment in time - with multiple competing priorities in the schools and in a context of a pandemic - Classcraft entails too much to fully implement on a short turnaround; rather, significant planning, training, and communication is needed between the Classcraft team and school leadership to support stronger levels of implementation.

STRENGTHS

FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

STRENGTHS

Comparison to Last Year (Longfellow Teachers)

- 7 out of the 8 teachers noticed the layout was different and easier to navigate overall the first level in particular.
- The chapters at the bottom did make it easier for teachers to progress, although only 2 teachers wanted to progress to the quest chapter. All other teachers said "it was too much" or "too complicated" beyond giving points and they were, therefore, not interested in progressing through all the chapters.
 - "It was nice to have the ability to shut down a lot of that extra stuff available last year."



Training

• All the teachers appreciated the personal nature of the virtual training and enjoyed seeing real faces from the Classcraft team.

Day-to-Day Implementation

• Teachers that used their phones to assign points had a much easier time of integrating Classcraft into their daily routines. (Technical Note: teachers reported that Classcraft "took forever to load" on their phones most of the time and it was unclear whether it was a wifi issue or Classcraft issue.)

STRENGTHS

FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Good Stand-Alone App for Students who like Games

Teachers noted that the students who liked Classcraft the most and engaged with it the most were students who were "gamers." Notably, it was students in 3rd grade and higher that engaged with it the most by choice, as students in second grade and below didn't seem to pick it up as easily nor chose to engage with Classcraft. The older "gamer" students liked the process of leveling-up and enjoyed creating characters. These students would interact with Classcraft during free time and would compete with one another on leveling-up.

"It's a visually appealing platform for students, the ability to go to different levels."

Teacher Voice

- "They like dressing the avatar."
- "I think it can be a standalone app an app for those students who want to use it during free time."
- "It is a good tool to take out on a Friday. I am not sure if a student understands the progress from Level one to two."

FEASIBILITY RESEARCH QUESTIONS

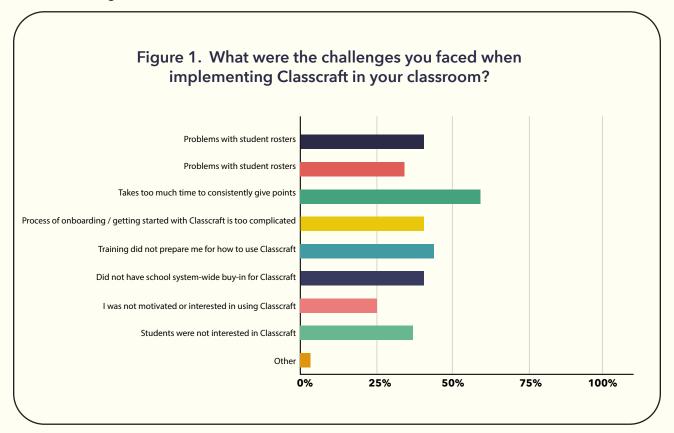
How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

BARRIERS

As the figure below illustrates, teachers reported a number of challenges in implementing Classcraft in the classroom in the post-survey. Nearly 65% of teachers said Classcraft "takes too much time to consistently give points" and close to 50% of teachers said the Classcraft "training did not prepare them" sufficiently nor did they "have school system-wide support for Classcraft." These barriers among others discovered through the focus groups are discussed in greater detail below.



FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Onboarding

All teachers preferred more time be spent on how to actually use and navigate Classcraft and all its features rather than "sitting and getting" so much background/theoretical information on the logic model of Classcraft. Most teachers said they didn't feel prepared to use Classcraft independently after the training session and felt like they were receiving too much information all at once. Most teachers also said they didn't have time to review all the tutorials on their own.

- "It was a lot of information. If I was brand new, I would have been overwhelmed." ~Longfellow, returning user
- "Need overview of how to use it instead of referring us to mini-tutorials."
- "Training didn't help at all had to figure it out on my own."
- "The training was limited didn't give insight into how to use it."
- "The tutorials aren't helpful. I don't have time to watch them."
- "I was really desperate. I used my planning time and lunch time to figure it out the day after the training."
- "Very easy for me to understand other techs like Class Dojo. This one is complex and needs lots of time to figure out."
- Most teachers did not have the correct rosters set-up when the training began, so they were preoccupied with that and lost focus on learning how to use Classcraft. For the teachers that didn't have any rosters, it was hard for them to follow along with the training.



FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Onboarding (Continued)

- "I need more explanation. I don't have time to sit down and figure it out. My classes didn't work during the training classes weren't correct. I would like to refresh the training when they {class rosters} actually work so that I can learn how to use it [Classcraft]."
- All teachers wanted more guidance on how to implement Classcraft in the classroom. That is, teachers felt like they didn't know best practices on how to integrate Classcraft into their routine. They wanted to see an example of a teacher using it during the day in the classroom with students to get a better idea of what and how it should look in practice.
- "I would love to hear how a first grade teacher uses it and what the impact was. I need ideas on how to implement it."
- "Once the school year started, I needed someone to come in to show me how to use the system in the classroom setting."

Teacher Voice

FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Whole-School Commitment to Classcraft Reward System

For Classcraft to work properly, teachers and school leaders alike noticed that it requires the whole school committing to one system, setting up and following through on rewards and privileges, and communicating system to students.

While everyone wanted to do all those things in theory, translating them into practice was such a huge lift that it never got done. Even though much of Classcraft was set up from a technical standpoint, there had not been enough guidance or planning at the school level on how Classcraft would replace existing PBIS systems.

While a few teachers spent a lot of time figuring Classcraft out themselves and using it, it never got fully integrated at the school level, leaving most teachers unsure how to use it or what the expectations were. At this moment in time - with multiple competing priorities and in a context of a pandemic - Classcraft entails too much to fully implement on a short turnaround; rather, significant planning, training, and communication is needed to make implementation stronger.

- "We need to be on the same page with communication and consistency with the Hawk Buck store and Classcraft points."
- "I haven't had time to touch it since the training. School has us doing lots of co-teaching, implementation in classrooms of other programs. Classcraft is just too time consuming right now."
- "We had training on a lot of different things and had a lot going on in the building at the time. I was very busy; I was subbing. I didn't have a chance to open it [Classcraft] up."
- "No planning time. We're so busy subbing or co-teaching or doing a training.
 No opportunity to take time to figure it out.



FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Whole-School Commitment to Classcraft Reward System (Cont.)

While teachers acknowledged that better communication about Classcraft was needed at all levels, they all said that a point system was not enough to incentivize and change behavior. The vast majority of students simply could not connect Classcraft points to anything tangible of value to them. Most teachers were open to Classcraft replacing existing reward systems at their schools, but at the moment, school systems need more support in HOW to integrate Classcraft into daily routines, HOW to communicate the value and purpose to students, and HOW a tangible reward system can pair with Classcraft.

 "The kids are confused on why they are getting Classcraft points and what they are for."

Teacher Voice

• "Either Classcraft team or our school's leadership team needs to simulate a real classroom. Show us why kids should care and what we tell the kids."

FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

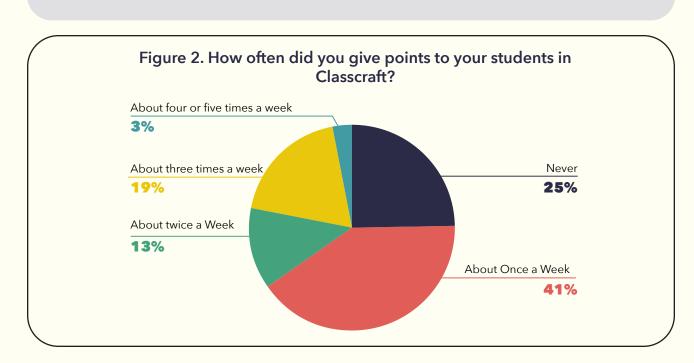
Assigning Points on a Day-to-Day Basis / Points System

Every teacher expressed how difficult it was to find time every day to award points. Many teachers do not like to carry their phones around, so it was difficult to pull Classcraft up on their computers at the moment and award points. If teachers waited to do it during their planning period or at the end of the day, they would either forget or not have the time as other duties took priority. As seen in the figure below, 41% of teachers reported in the post-survey that they only gave points once a week and 13% did about twice a week. Only 22% of teachers reported giving points more than three times a week.

• "Kids remind me but I can't find the time and often forget." ~5th grade teacher

Teacher Voice

- "I originally downloaded it on my phone and computer it took away from class time. I had to stop and look at my phone took time away; I added Classcraft to classroom screen saw 5 minutes going down out of my class time." ~7th grade teacher
- "It worked well for 2 weeks and then I got behind and my students got bored with it." ~8th grade teacher



FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Assigning Points on a Day-to-Day Basis / Points System (Cont.)

Beyond time, most teachers also shared that awarding points in Classcraft was not as effective as other systems (including Class Dojo) because the students don't hear or see that they are receiving points in the moment. When teachers say "I am giving you 50 Classcraft points," it doesn't have the same effect as handing students a piece of paper (Hawk Buck, Gotchas, etc.) where students instantaneously see they received points. For these reasons, most teachers - and students - were not able to see the direct connection between points, rewards, and behavior and many teachers fell back on their own rewards systems.

- "[The students are] more interested in getting the Hawk Bucks than the points in Classcraft."
- "Some kids with internal drive or competitive drive want to see how many points they have and compare. Those kids not like that or who don't have as many points stop using Classcraft."

Teachers did not give students much opportunity to engage with Classcraft on their own like customizing their characters and training their pets, as illustrated in the figure below; only 12% of teachers allowed students to use it more than twice a week and half of teachers never had students use it on their own. Obviously, this prevented many students from making the connection between Classcraft points and rewards/privileges within Classcraft. From the teacher perspective, those that never had students engage with it said they simply thought it was too complicated and didn't see the connection (theoretically or practically) between Classcraft points and improved student behavior.

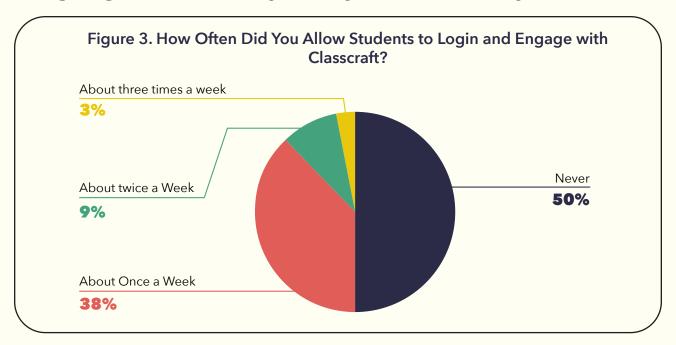
FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Assigning Points on a Day-to-Day Basis / Points System



For first and second grade teachers, the Classcraft point system was too advanced. Young students couldn't comprehend numbers in the hundreds and thousands, so for them, they don't understand when they have "a lot" of points or a sufficient amount to do anything with. For this reason, teachers note that it is hard to connect the idea of Classcraft points to goals for students as they don't know how much more is needed to get to a goal. First and second grade teachers also said that their students would give up if they saw other students with more points or doing more things in Classcraft.

- "I don't want to show the whole class progress without it being public. First graders see others ahead of them and just give up they don't see it as competition and incentive."
- "A point system isn't enough; I even tried the free trial when I was in first grade a few years ago and ran into the same issue."



FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Most teachers also didn't understand how to assign the value of points. That is, it was unclear to most teachers when they should give 100 points vs. 500 points. They didn't know how many points students needed to do things in Classcraft. Even more difficult was aligning the value of Classcraft points to the value of things in their school stores or rewards systems. Most teachers did not understand the difference among the three different reward types: XP, Gold Pieces, and Crystals.

- "I might recommend keeping one type of reward type."
- "I tried it but not right time. I tried to use it. It takes time to figure out how many crystals we're going to give, how many XP is appropriate, trying to decide the rewards. I didn't have the time for all that."

Student Rosters

Almost every teacher at both schools mentioned that they had problems with their student rosters even after the training. While this is most likely a problem with Clever and/or district IT not syncing correctly, teachers got frustrated because they couldn't get properly started and didn't want to start if not all their students were on the roster, as they felt it was unfair. Teachers wanted a way to add and remove students on their own.

- "My class is a revolving door kids leaving and coming. How do I remove and add students on my own? My rosters were never accurate."
- "I was using Classcraft pretty well, but then my roster changed so much that it
 was hard to use. Getting the students switched over was difficult and I didn't
 know how to do it."

Teacher Voice

Teacher

Voice

ACTION STEPS

FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

ACTION STEPS

Onboarding

The vast majority of teachers wanted the training to include more ideas/examples from other teachers on how to use Classcraft in the classroom and integrate more effectively on a day-to-day basis.

- "There needs to be a simulation of a real classroom."
- "I need to see a real teacher use it in her classroom because I don't know where to begin or what it should look like."
- "I need to see examples and ideas from lower grade teachers."

Keep training at 60 minutes with a maximum of 10 minutes for background/theoretical information. Teachers longed for more explanation of how to use Classcraft, definition of key terms (i.e. XP, quests, level-up), and how all the features went together. Most teachers, especially the non-gamers, did not understand how giving points, leveling-up, going on quests, and using a volume meter were related. Thus, it would be helpful to include a high-level overview of all the chapters of Classcraft and how each is dependent on one another (or not) and which features are student-facing only (i.e. leveling-up) and which ones the teachers are responsible for. Most teachers did not, for example, understand that they had to set up quests.

- "I don't need to compare Classcraft to Starbucks stars. I need to know how to use it."
- "I am not a gamer so there are tons of terms here that I don't get. That would be more helpful to go over in the training session."
- "I had to figure it out on my own and it is not easy because I didn't get what the end goal should be."
- "The students had to tell me to make quests, and I had no idea what they were talking about or how to do that."

Teacher Voice

Teacher

Voice

ACTION STEPS

FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

Onboarding (Continued)

Explain better the chapters and the rationale for the chapters. Walk through the necessary chapters together in the training that gets them to the bare minimum needed to start giving points.

"I didn't understand what the chapters were or why they were optional."
 ~new user

Teacher Voice

Teachers do not have time or interest to go through all the supporting materials on the website - videos, tutorials, etc. They expressed that if they have to attend a training, they want to learn it all in the training and not have to spend additional time going through materials. Those teachers that did go through the materials still found them hard to follow because they didn't have a good baseline understanding of how using Classcraft on a day-to-day basis should look like.

- "I don't have time to go through the website and figure it out myself."
- "I need personal hand-holding to figure it out. Not interested in self-guided videos."

Teacher Voice

Whole-School Commitment to Classcraft Reward System

Just as teachers wanted more real-life examples of how to implement Classcraft in the classroom, administrators needed more support on how to integrate Classcraft into existing rewards systems or how to create new ones. Administrators needed more support in how to roll it out to their teachers and how they could support teachers and encourage/maintain consistent usage. Therefore, a consistent request is for the Classcraft team to spend more time on supporting school administrators up-front on clear examples and methods for integration into the school routine and systems. The checklists that the Classcraft team used is a great start and helped keep the administrators on task for logistical matters, but school leaders need more support and advice on ways of integrating Classcraft into school systems.

ACTION STEPS

FEASIBILITY RESEARCH QUESTIONS

How well can teachers and staff implement Classcraft in the classroom and school given recent product enhancements?

What went well and what barriers remain?

What value does Classcraft bring to teachers?

For schools like the ones in this study that want to attach Classcraft points to something tangible in their own school stores or rewards systems, significant preparation time is needed to set this up and "educate" teachers and students on the new system. More guidance is, therefore, needed in the beginning specifically related to setting up the rewards structure and system in the school and how to communicate the new system to teachers and students.

Assigning Points on a Day-to-Day Basis / Points System

The teachers that had greatest success with giving out points did so on their phones. This was not an option, however, for many teachers who did not like carrying their phones around or said they don't use phones in their classroom as they want to model non-phone use behavior to their students.

Therefore, consistent with the theme throughout, it would help teachers to see examples of a teacher giving out points in different ways so that teachers could see various options for giving points and choose the method that works best for them. Most teachers simply didn't find a successful, time-efficient method to give out points and they all desired to see examples from real-life classrooms in the initial training.

Since the structure of the point systems - different types of rewards and high-point values that seemed arbitrary to most teachers - more training up front is needed to explain the point system.

It would also help teachers and students in classrooms below the 3rd grade, to have a different point system altogether - one that uses lower values for points that students in lower grades can understand.

Teachers need to understand what sort of behavior is "worth" 100 XP and what other sort of behavior is "worth" 500 XP, for example. The teachers didn't know what among of XP or crystals students needed to be able to do things in Classcraft and knowing this better would help them determine how much XP to give for corresponding positive behavior.

How well can students navigate Classcraft and what value do students see in Classcraft?

How well can students navigate Classcraft and what value do students see in Classcraft?

Overview

Overall, students wanted the experience to feel more game-like. They were unclear what the goal of Classcraft was from the student experience. Of the students that used it most frequently, they understood the notion of leveling up, but they still didn't know when it "ended" or what their goal was. There was lots of interest in the quests and powers and students wanted to be able to use the powers in quests in a game-like fashion. The points were not explicitly tied to anything tangible for the students. They didn't know what to do with them and, again, wanted points to be tied to a game that they could compare with their friends. All students said that without the points tied to a game, they weren't motivated by them. If the points were tied to their school stores, they would like that better. Therefore, it is recommended to enhance the quests by making it feel more like a game - especially one that would be competitive with their friends. While all students loved the characters, they wanted more options and more flexibility in designing their own characters and clothes/accessories.

How well can students navigate Classcraft and what value do students see in Classcraft?

Did any of you use Classcraft last year? If so, what changes did you notice?

- Of the 21 students interviewed during focus groups, 15 had used Classcraft the previous year.
- Most students did not notice a change
- The 5th and 6th grade group noted the change in the character design (characters are now 3D).

Have the changes been helpful to you? Why or why not?

• One student mentioned that he doesn't know/hasn't noticed how to help a friend when they "fall" within Classcraft.

What do you like best about Classcraft?

- All the students mentioned that they enjoyed the character personalization aspect of Classcraft.
 - ° "My favorite part is customizing characters and there are only three characters but you can customize them."
 - ° "You don't even have to level up to customize your characters!"
 - ° "I like to get XP to change characters."
 - ° "I like [that] we can customize our characters."
- The XP and leveling-up feature was also popular with the students—they enjoyed being able to level up and use their points for things.
 - ° "I like leveling up because I get more power."
 - ° "I like the levels and points– because you can do something with it."
 - ° "I like the points because when the teacher shows the class the list it makes us happy to see when we are on top of the list."

How well can students navigate Classcraft and what value do students see in Classcraft?

What features or activities did you like the most? Why?

- The ability to customize characters was the most popular feature.
 - ° "I like changing my character"
 - ° "I like changing his outfit because he looks cool now."
 - ° "I like making my character cute."
 - ° "I like to buy weapons" (for their characters).
- A few students liked going on quests but said it was difficult to get to. The other students didn't know about the quests, most likely because it hadn't been set up by the teacher.

What did you think about the characters? Was there a particular one you wanted to be?

- The students enjoyed being able to change the characters and customize them.
 - ° "I like putting special powers on the characters."
 - ° Liked "adding new skins" and "buying clothes."
 - ° "I like how the characters are connected to health."
 - ° They also mentioned the "pets" that they could get.
 - ° "I like to get pets."
 - ° "I like that you can upgrade pets."
- A few students mentioned they wished they could do more with their characters.
 - ° "Change the model to more options."
 - ° "I want to change my character more often."
 - ° "I wish there were more characters to choose from."
 - "I wish I could customize parts of the clothing more."

How well can students navigate Classcraft and what value do students see in Classcraft?

What would you like to be able to do with Classcraft that you currently can't?

- Overwhelmingly, and with passion, all students said they want to do more with their characters.
 - ° "Get powers– healing, disappearing, challenge friends, teleport."
 - ° "I'd like to play a game with the characters– I don't know if there even are games."
 - ° "I would like to do something like fight other made-up characters."
 - ° "I would like [the characters] to have more powers– something that would save me if I was losing in the battle."
 - ° "Upgrade characters to go on missions with my friends."
- Add more games/guests- even "mini games."
 - "I wish there were learning games that we could do on our own and earn more points."
- Wanted to collaborate/play with other students.
 - ° "I want to play with my friends on the game."
 - ° "I'd like to message other friends and even meet other kids from other schools."

What did you not like about Classcraft?

- All the students were disappointed that there was not a "game" aspect to Classcraft.
 - ° "I don't like how we can't play games– all we can do is buy clothes and that's boring."
- Characters/Pets:
 - ° "I don't like the power on the blue character– it's too crazy."
 - ° "It costs too much to buy the pets."
 - ° "I don't like how you can't change the ability [the power] once you choose it at the beginning."
 - ° "I want to see my friends' characters and play with them."
- Points:
 - ° "I don't like losing points."
 - ° "It's really hard to get enough points."

How well can students navigate Classcraft and what value do students see in Classcraft?

What about Classcraft is hard to use? What do you not understand about Classcraft?

- All students were disappointed/confused that there were no games within Classcraft.
- The leveling up feature was confusing
 - ° "Things were still locked even when I leveled up."
 - ° "I got confused because I didn't know how I leveled up."
- The cost of things within the game/accessing certain features was hard to understand.
 - ° "I don't understand why some things cost so much and others don't."
 - ° "I don't know how to unlock powers."
 - ° "I don't know how to buy clothes."
 - ° "I didn't understand the adventures at all."
- Some of the language was difficult to understand/inaccessible to younger learners.

What would you change about Classcraft? Or add to Classcraft?

- Adding a way to collaborate/play with their friends within Classcraft was a popular suggestion across all age groups. (e.g., invite friends, send messages to friends, visit friends, play games with friends)
- The students also suggested adding more character-related features. (e.g., hairstyles, dance moves(!), more clothing choices)
 - ° "More cosmetics and accessories for characters, and have things be less expensive."
 - ° "More formal clothing- the dude I had was wearing leaves and that's not cool."
 - ° "I'd like to add a family or a house or things like that."

How well can students navigate Classcraft and what value do students see in Classcraft?

Did you level up? Did it take too long, too fast, or just about right to level up?

- The leveling up system was confusing/hard to use.
 - ° "I don't understand how or why I level up."
 - ° "It's too hard to level up."

Do you still want to keep using Classcraft

All the students (21) wanted to keep using Classcraft. They enjoyed the characters, taking care of their pets, and earning points from their teachers in Classcraft. They saw it as a stand alone "game/app" that they enjoyed "playing" but few saw the connection to the larger notion of earning points for behavior change or for rewards/privileges outside of Classcraft.

The students compared Classcraft points and Hawk Bucks (school currency) and weighed the pros/cons of each. Almost all students said they wanted both - they wanted Classcraft points to do things in Classcraft and Hawk Bucks to buy things at the store. It was difficult for them to see how they would use Classcraft points at the school store since they have to physically "turn in their Bucks." Those that did understand that worried that if they used Classcraft points for clothes or other things within Classcraft that they wouldn't have enough left to buy things at the store, and they wanted to do both.

- "I don't want to keep reminding my teacher to give us Classcraft points"
- "Hawk Bucks are easier for the teacher."
- "Classcraft is better for the environment because you don't have to print anything on paper."
- "If I spent the points on characters I wouldn't be able to use points at our school store."
- "Hawk Bucks are better because I can store them in my desk and count how many I have." ~2nd grade students

CORRELATIONAL

In this section, the results of the correlational analysis are presented. Given the challenges in classroom implementation described in the Feasibility section above - as well as barriers brought on by the Covid-19 pandemic - there are limited statistically significant results. Further analysis in more favorable conditions is recommended to verify and discover potential correlation and impact of Classcraft on teacher and student outcomes.

TEACHERS OUTCOMES

RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and teacher self-efficacy for fostering social emotional learning?

What is the relationship, if any, between use of Classcraft and teacher self-efficacy for fostering social emotional learning?

Classcraft teacher usage data - measured by total number of points given over the semester - was correlated with the change in teachers' survey responses on an identical pre- and post-survey. The response rate was 100% on the pre-survey at both schools while the response rate on the post-survey was 53% at Northeast and 88% at Longfellow. There were 25 matched (pre- and post-survey completed by the same teacher) surveys at Northeast and 7 matched surveys at Longfellow for a total of 32 matched surveys (overall matched rate of 58%).

The following table lists each survey question and whether there was a statistically significant correlation with Classcraft teacher usage. For each survey item, as well as composite variables combining similar survey items into one, there were no statistically significant correlations.¹

Table 1. Section 1: Teacher Self-Efficacy and Opinions on Social-Emotional Learning and Teaching

Survey Question		Statistically Significant Correlation
1	I am confident in my ability to teach social-emotional learning in my classroom.	No
2	I am prepared to address the unique social-emotional needs of my classroom students.	No
3	I can motivate students who show low interest in school.	No
4	I am confident in my ability to calm a student who is disruptive or noisy.	No
5	Social-emotional learning should be part of the classroom/school curriculum.	No

^{1.} Figures 1 and 2 in the Appendix show the change in each survey item.

TEACHERS OUTCOMES

CORRELATIONAL RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and teacher self-efficacy for fostering social emotional learning?

Table 1. Section 1: Teacher Self-Efficacy and Opinions on Social-Emotional Learning and Teaching (Cont.)

Surv	vey Question	Statistically Significant Correlation
6	I feel connected to my students.	No
7	I know the unique social-emotional needs of each of my students.	No
8	I have the tools to monitor student behavior.	No
9	I feel confident that I can de-escalate disruptive behaviors.	No
10	I want to teach my students social-emotional learning.	No

Table 1. Section 2: Teacher Feelings about School Culture

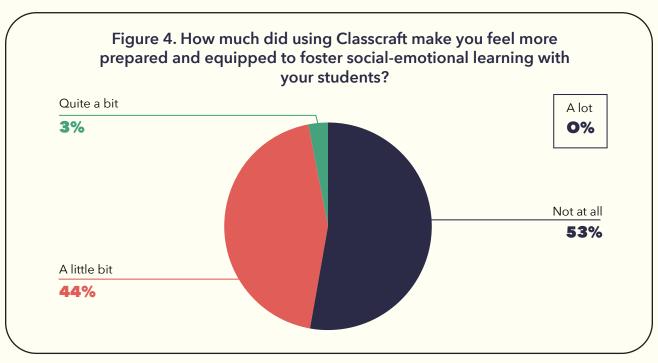
Sur	vey Question	Statistically Significant Correlation
11	How excited are you to come to school every day?	No
12	How much trust is there among teachers at your school?	No
13	To what extent is there shared vocabulary regarding student behavior at your school?	No
14	How much respect do you think teachers at your school show the students?	No
15	How positive is the working environment at your school?	No

TEACHERS OUTCOMES

RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and teacher self-efficacy for fostering social emotional learning?

Additionally, on the post-survey, teachers were asked to self-report (on a 4-point scale) "how much did using Classcraft make you feel more prepared and equipped to foster social-emotional learning with your students?" Across both schools (Figure 4), the majority did "not feel equipped at all" while 44% felt "a little" equipped and only 3% of teachers felt "quite a bit" equipped. Teachers at Northeast felt slightly more equipped than teachers at Longfellow.



STUDENT OUTCOMES

CORRELATIONAL RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

What is the relationship, if any, between use of Classcraft and student behavior?

As an objective way to measure student behavior, discipline referral data was collected daily for each student over the course of the semester. It was then correlated with the number of Classcraft points each student received and, separately, with the number of levels earned in Classcraft as two different proxies for student Classcraft usage. In total, there were 519 students included in this sample.

In Figure 5 below, the correlation between the total number of Classcraft points each student received over the whole semester is correlated with the total number of discipline referrals each student received over the course of the semester. The result is a statistically significant, negative correlation (-0.1247, p<0.05) between number of Classcraft points and discipline referrals². Specifically, students who received more Classcraft points experienced fewer discipline referrals while students who received fewer Classcraft points experienced more discipline referrals³.

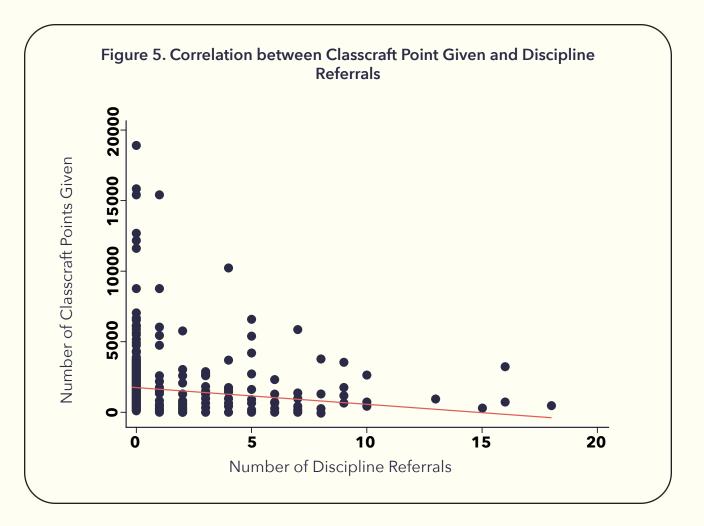
^{2.} The same relationship is observed when using the number of levels each student earned in Classcraft as a proxy for usage instead of Classcraft points, although the correlation becomes smaller and not statistically significant, primarily due to the fact that the sample of students who did level-up is relatively small to the whole sample.

^{3.} It is important to note, however, that students receive Classcraft points for positive behavior, so it is natural that students receiving discipline referrals are not receiving Classcraft points. Thus, this is likely an endogenous correlation, meaning that the correlation is likely capturing the fact that students with better behavior receive more points while those students with bad behavior receive less points. The time series analysis in Figure X will help address this issue.

STUDENT OUTCOMES

CORRELATIONAL RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

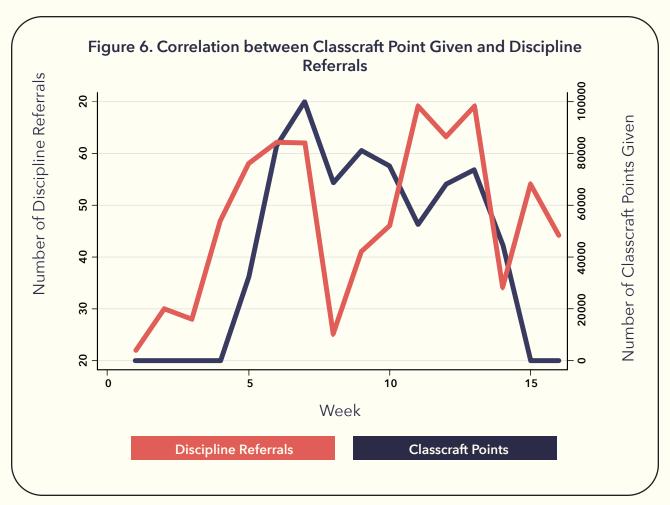


STUDENT OUTCOMES

RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

In order to assess better the correlation between Classcraft points and CHANGE in discipline referrals, a time series analysis was conducted. In Figure 6 below, the total number of discipline referrals each week and the total number of classcraft points awarded each week across the whole school is plotted. Ideally, if there was a negative correlation (i.e. more points = LESS discipline referrals), then the two lines in the figure would move in opposite directions; instead, the lines move together. As Classcraft points go up, for example, from week 4 to 7, so do discipline referrals which is opposite from what the intended relationship is. The positive correlation coefficient (0.1967) confirms the relationship to be positive instead of negative, although the correlation is not statistically significant.



STUDENT OUTCOMES

RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

Student Survey Findings

Another method for assessing the correlation between Classcraft usage and student behavior was by gathering student self-evaluations of their behavior. Classcraft student usage data - measured by total number of points received over the semester - was correlated with the change in students' survey responses on an identical pre- and post-survey. There were 42 total matched (pre- and post-survey completed by the same student) surveys: 28 at Longfellow and 14 at Northeast.

For each survey item, as well as composite variables combining similar survey items into one, there were no statistically significant correlations.

Table 2. Student Self-Evaluation of Behavior

Survey Question		Statistically Significant Correlation
1	I know ways to calm myself down.	No
2	I know when my feelings are making it hard for me to focus.	No
3	I come to class on time.	No
4	I come to class prepared.	No
5	I follow directions.	No
6	I get my work done right away instead of waiting until the last minute.	No
7	I pay attention and ignore distractions.	No
8	I remain calm even when criticized or annoyed.	No
9	I let others speak without interrupting.	No
10	I show respect to adults.	No
11	I speak up when I see others being hurt.	No
12	I can think of how others will feel when I do something.	No

STUDENT OUTCOMES

CORRELATIONAL RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

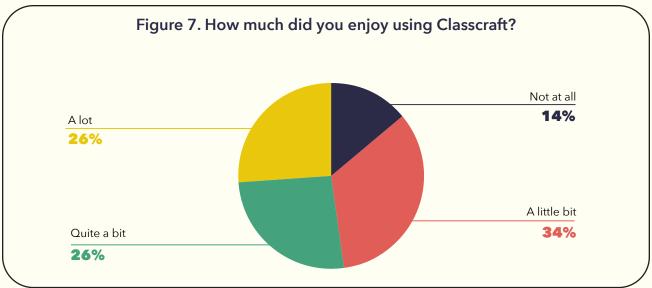
Survey Question		Statistically Significant Correlation
13	I show respect to my classmates.	No
14	I can control my anger.	No
15	I am able to stand up for myself.	No
16	I am able to calm myself down.	No
17	I care about the feelings of others.	No
18	I can help others control their emotions.	No
19	I get along with students who are different from me.	No
20	I respect the views of others even if I disagree with them.	No

STUDENT OUTCOMES

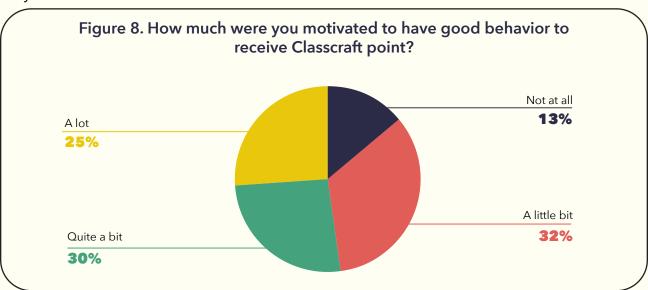
RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

Additionally, the post-student survey asked students "how much did you enjoy using Classcraft?" Over half of the respondents reported enjoying Classcraft "A lot" or "Quite a bit."



Lastly, students were asked directly "how much were you motivated to have good behavior so that you could receive Classcraft points?" Again, just over half of the respondents said they were motivated "A lot" or "Quite a bit."



STUDENT OUTCOMES

RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

Teacher Perceptions of Student Behavior

The following table lists each survey question on the teacher survey that assesses teacher perception of student behavior and also lists whether there was a statistically significant correlation with Classcraft teacher usage. Among all survey items, as well as composite variables combining similar survey items into one, there were one statistically significant, positive correlation (0.3528). As shown in Table 3, teachers who used Classcraft more (those who gave out more Classcraft points) perceived students helping one another more often than teachers who used Classcraft less.

Table 3. Section 3: Teacher Perceptions of Student Behavior

Sur	vey Question	Statistically Significant Correlation
16	How much respect do you think students at your school show the teachers?	No
17	How often do you see students at your school helping each other without being prompted?	Yes
18	How often do students at your school stand up for each other?	No
19	How would you rate the overall student behavior at your school?	No
Please i	mark how many students in your class(es) consistently do the following:	
20	Come to class on time.	No
21	Come to class prepared.	No
22	Follow directions.	No
23	Know methods for calming themselves down.	No
24	Know when their feelings are making it hard for them to focus.	No
25	Get their work done right away instead of waiting until the last minute.	No
26	Pay attention and resist distractions.	No
27	Remain calm even when criticized or annoyed.	No
28	Allow others to speak without interruption.	No

STUDENT OUTCOMES

CORRELATIONAL RESEARCH QUESTIONS

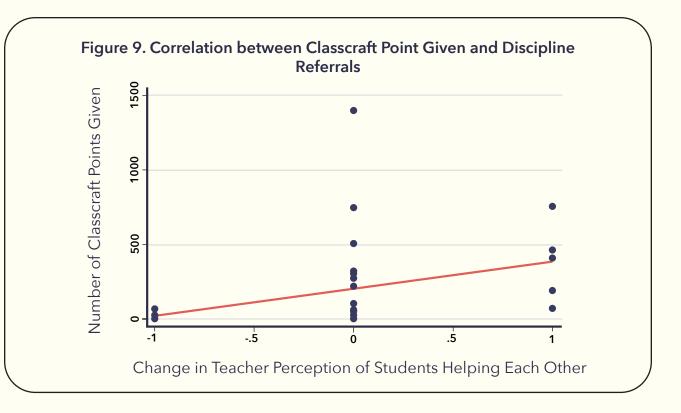
What is the relationship, if any, between use of Classcraft and student behavior?

Survey Question		Statistically Significant Correlation
29	Show respect to adults.	No
30	Show respect to their classmates.	No
31	Control their anger.	No
32	Calm themselves down.	No
33	Care about the feelings of others.	No
34	Help others control their emotions.	No
35	Get along with students who are different from themselves.	No
36	Respect the views of others even if they disagree with them.	No
37	Stand up for themselves.	No
38	Speak up when they see others being hurt.	No

STUDENT OUTCOMES

CORRELATIONAL RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

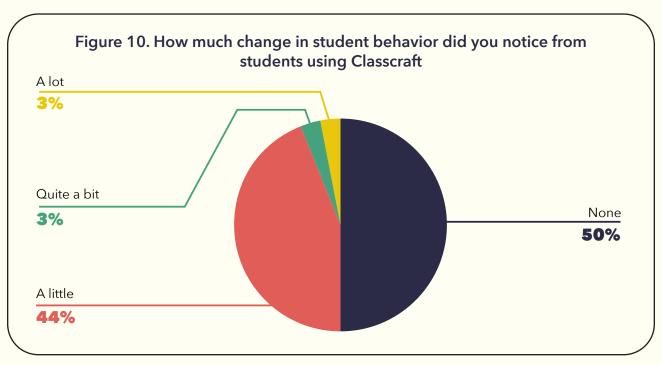


STUDENT OUTCOMES

RESEARCH QUESTIONS

What is the relationship, if any, between use of Classcraft and student behavior?

Lastly, the post-teacher survey asked teachers directly to evaluate "how much change in student behavior did you notice from using Classcraft?" Overall (Figure 10), 50% of teachers noticed no change, while 44% noticed "a little" change and 6% noticed "quite a bit" or "a lot" of change. Teachers at Northeast noticed more change than teachers at Longfellow.



Conclusion

The feasibility study yielded important insight on the strengths and remaining challenges of classroom implementation of Classcraft given recent product enhancements. Specifically, administrators and teachers need more support before the semester begins in setting up systems and procedures to integrate Classcraft into existing rewards systems and get all staff onto the same page.

Overwhelmingly, teachers would like more examples from teachers who have found success with Classcraft on HOW to implement Classcraft efficiently and effectively in the classroom on a day-to-day basis. Students remain adamant that there be more for their characters "to do" within Classcraft. It is, therefore, recommended that Classcraft continue to evaluate feasibility in new classrooms/schools in order to streamline adoption and sustain usage.

Due to the implementation challenges identified in this report, the null correlational findings are expected. Furthermore, survey data over a short time period can be unreliable, so objective measures like discipline referrals is a better way to assess behavior change and should, therefore, be prioritized in further efficacy research.

To better assess correlation, it is recommended that further analysis be conducted with schools that have already integrated Classcraft into their school routines and culture and that are consistently utilizing Classcraft. With more usage and consistent implementation of Classcraft, the correlational analysis may yield different results.

SUPPLEMENTAL GRAPHS

The figures in this appendix show the change in each survey item on the teacher and student survey. Changes that are statistically significant are noted with an asterisk. The only change that is statistically significantly correlated with Classcraft usage is the one illustrated in Figure 15.b on page 51.

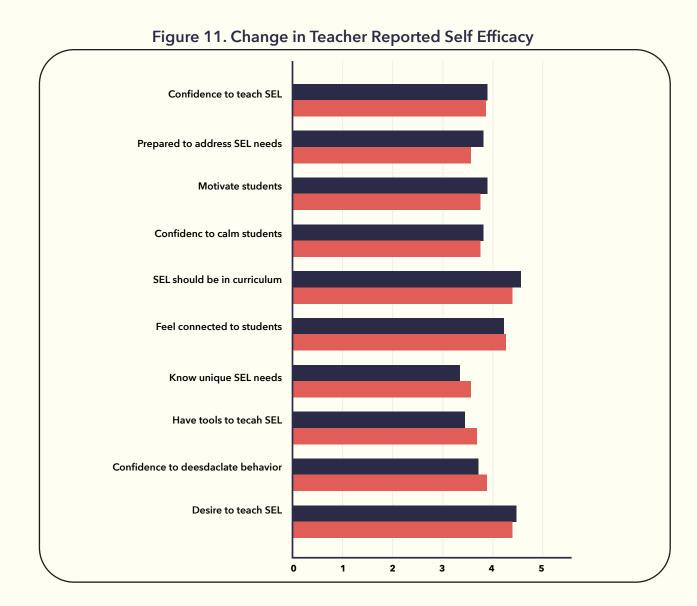
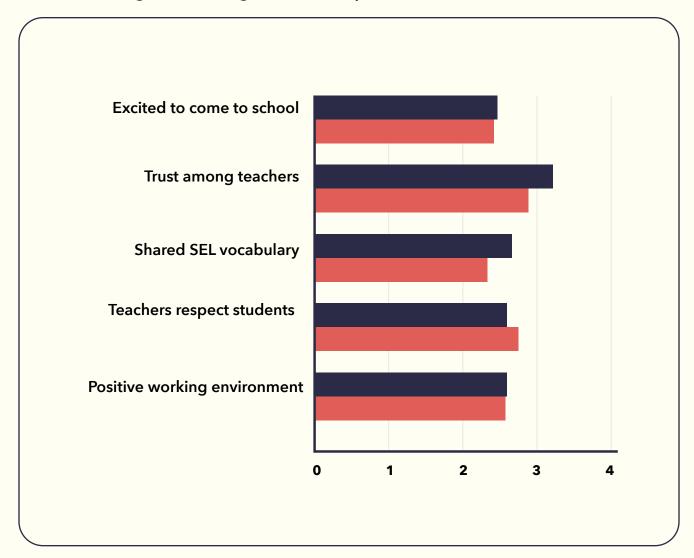
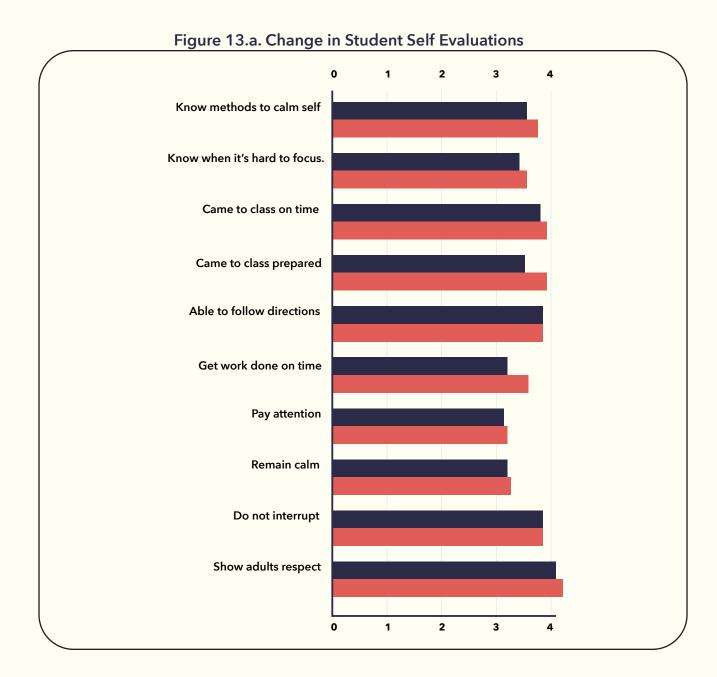
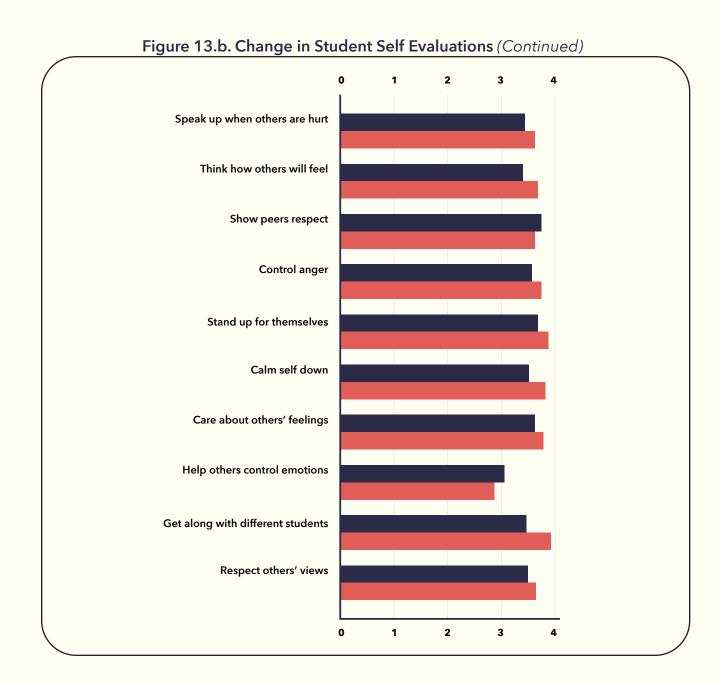
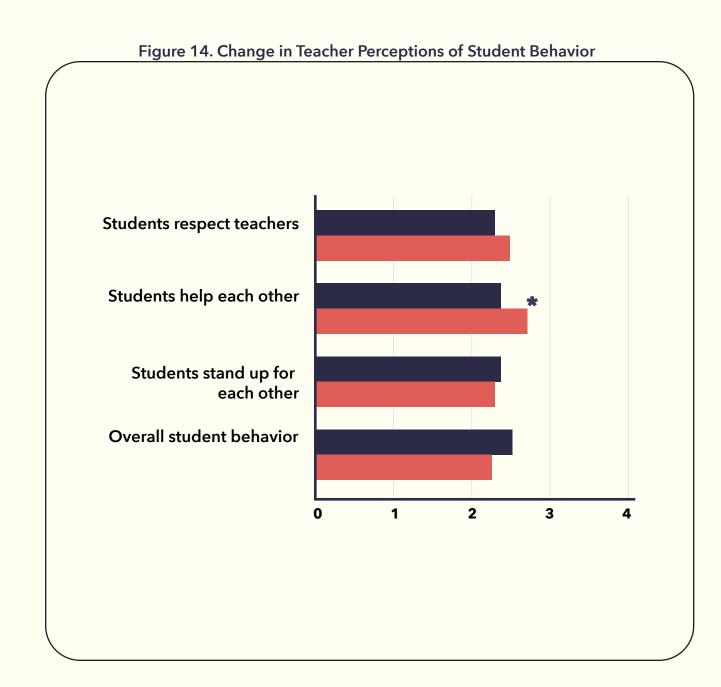


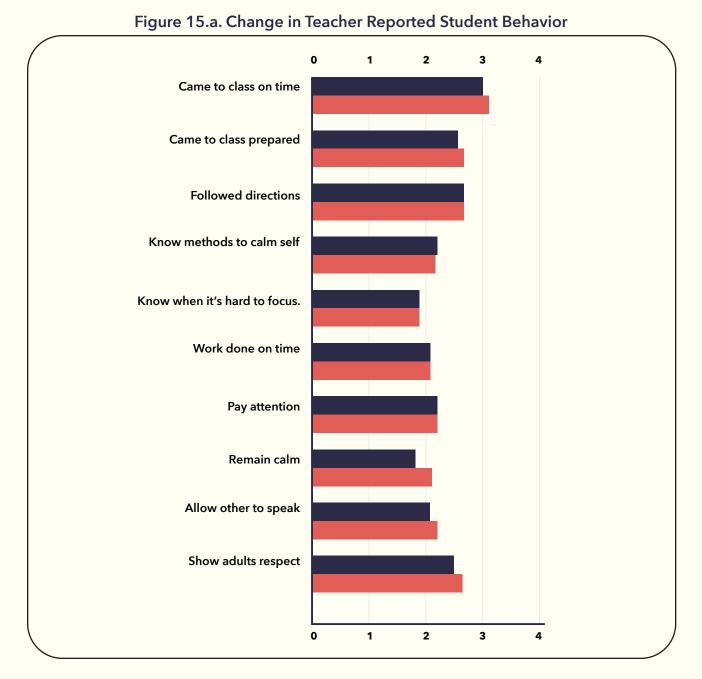
Figure 12. Change in Teacher Opinions on School Culture

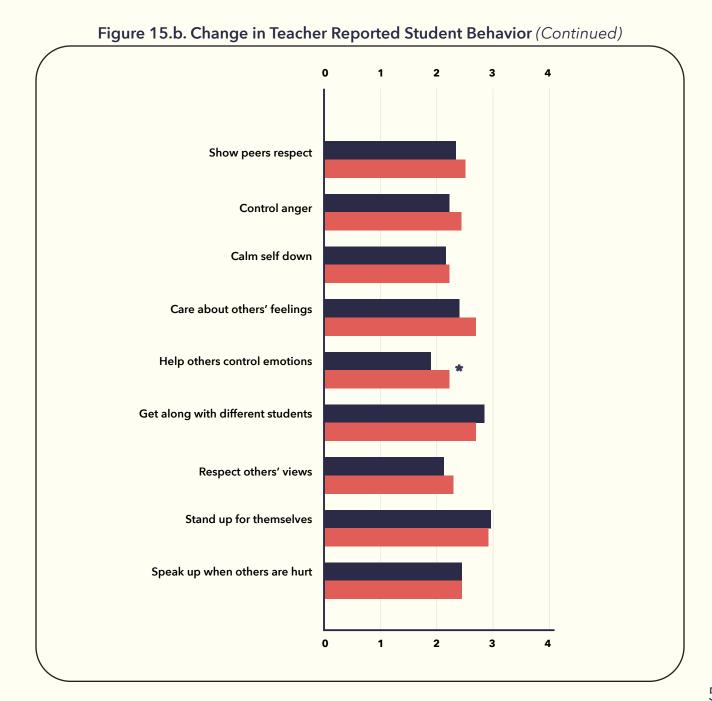












Appendix B *Testimonials*

TESTIMONIALS

Positive student comments taken from feasibility findings on page 24.

- "My favorite part is customizing characters and there are only three characters but you can customize them."
- "You don't even have to level up to customize your characters!"
- "I like to get XP to change characters."
- "I like [that] we can customize our characters."
- "I like leveling up because I get more power."
- "I like the levels and points- because you can do something with it."
- "I like the points because when the teacher shows the class the list it makes us happy to see when we are on top of the list."
- "I like changing my character"
- "I like changing his outfit because he looks cool now."
- "I like making my character cute."
- "I like putting special powers on the characters."
- "I like how the characters are connected to health."
- "I like to get pets."
- "I like that you can upgrade pets."

Appendix CAction Plan

ACTION PLAN

Onboarding Recommendations

- Provide more ideas/examples from other teachers on how to use Classcraft in the classroom and integrate more effectively on a day-to-day basis.
- Keep training at 60 minutes with a maximum of 10 minutes for background/ theoretical information.
- Provide teachers with a glossary of terms unique to Classcraft to go over during the training.
- Provide a more in depth explanation of the chapters and the rationale for the chapters.

Whole-School Commitment to Classcraft

- Spend more time on supporting school administrators up-front with clear examples and methods for integration into the school routine and systems.
- Provide administrators with supporting materials to help communicate the new system to teachers and students.

Assigning Points on a Day-to-Day Basis / Points System

- Provide more training for how the points system works.
- Provide more examples of the various ways teachers are able to award points, so that teachers could see various options for giving points and choose the method that works best for them.

Appendix CAction Plan

Student Recommendations

- Add a feature that allows students to play games within Classcraft.
- Provide a way for students to collaborate/play with their friends within Classcraft (e.g., invite friends, send messages to friends, visit friends, play games with friends).
- Adding more character-related features. (e.g., hairstyles, dance moves, more clothing choices)