

Project - ClassDojo

Spring 2021

Based on [ClassDojo.com](https://www.classdojo.com)

Please note that business rules were changed to manage scope and complexity of the assignment.

Overview

- You are to design a database to support (parts of) an app that allows teachers to award points to students based on positive or negative behavior. This assignment is based on ClassDojo (www.classdojo.com). However, the assignment may differ from that application in order to reduce complexity and scope. When it does, the project & Canvas discussion board are considered authoritative.
- ClassDojo supports teachers to reward appropriate student behavior. The app works as follow:
 - The teacher can create a set of positive and negative behaviors
 - During class, the teacher can log into the app and award points to students or remove points from students
 - This feedback (behavior and points for a student) can be shared with the parents and students
 - Teachers can also share stories and student's stories with the parents.
- More details on the slides that follow. **Please remember that a data model shows the data that is needed to run the App. Many user interface elements as well as processes will not be part of the data model.**

Set up a new school

- A school can create a profile in ClassDojo. The name of the school, address, contact information of the principal.
- The school needs to be associated with at least one ClassDojo mentor. A ClassDojo mentor is a teacher who works for the school and elected to be ClassDojo mentor. A teacher can only be ClassDojo mentor for one school.
- The system generates and stores an access code that is used to invite other teachers (how this is done is outside the scope). That access code needs to be unique but may change.

Adding Students

- Students enrolled in a school are centrally added by the school's ClassDojo mentor.
- For each student, first and last name will be added.
- The system assigns an avatar to the student which can be later changed and remembers a sign up date.
- The student is associated with the school. Each student is enrolled in exactly one school.
- The system generates a student access code that is unique but may change for each student. The access code is given to the student (outside the system) and the student can use the access code to sign up and verify his or her account (next slide). The parent can use the access code to sign up and link to the student account (next slides).
- The students associated with a school make up the "school directory". A school directory is a list of all students who are associated with a school.

Students Sign Up

- Students will use their access code to sign into ClassDojo. (see page “adding students”)
- Upon first sign up the student account status is set to “verified”.
- The student will choose a username and password. The username needs to be unique and can be changed.
- Student accounts are not active until a parent signs up and verifies the student’s account.
- In general, a student account can be either initialized, active, inactive, and graduated.



Halle B

I'm Halle's parent

I'm Halle

[I don't recognize this student](#)

Parents Sign Up

- Parents will enter the student access code (see page “adding students”) and indicate that they are the students parent.
- Parents without a parent account will need to sign up. In order to sign up, they need to enter their first and last name, email, and password. The email is unique but may be changed.
- Parents who already have a parent account in ClassDojo can login into their account.
- The system will use the access code to look up the student and associate the parent with the student.
- If the student account status is still set to verified, the status will be set to active. (see page “students sign up)
- Parents can be associated with many students but need to be associated with at least one student.



Halle B

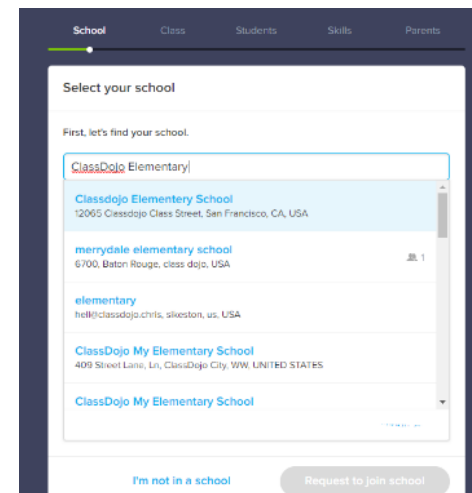
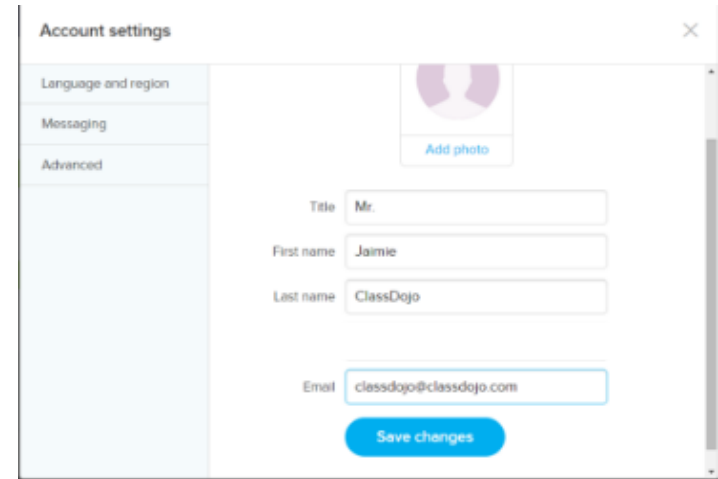
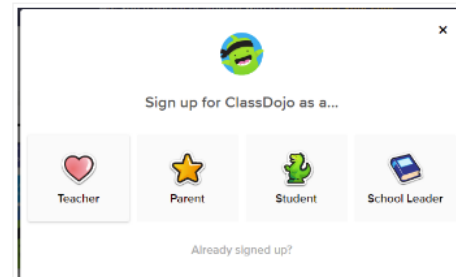
I'm Halle's parent

I'm Halle

I don't recognize this student

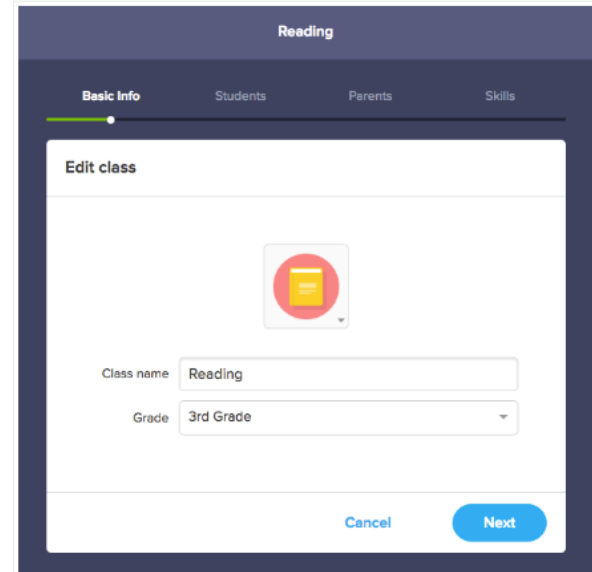
Teacher Accounts

- Teacher can sign-up to ClassDojo and request a teacher account (picture 1).
- The teacher enters personal information (see picture 2). The email needs to be unique in the system in order to avoid that messages are sent to different people. The email can be changed.
- The teacher is asked to find and associate with a school (picture 3).
- The teacher will need to enter the school teacher access code (see access code on page “Set up a new school”) to associate with a school.
- A teacher does not have to associate with a school.
- The system generates a teacher code for each teacher that can be used to give access to a teacher’s classes (more about this later on page “Share classes”). This code is unique but can be changed. The teacher code needs to be stored in the system.
- The system will also send a request for verification to the ClassDojo mentor of the school. Certain features can only be done by verified teachers. Whether a teacher is verified needs to be stored in the system. When the teacher changes schools, this verification needs to be reset to not verified.

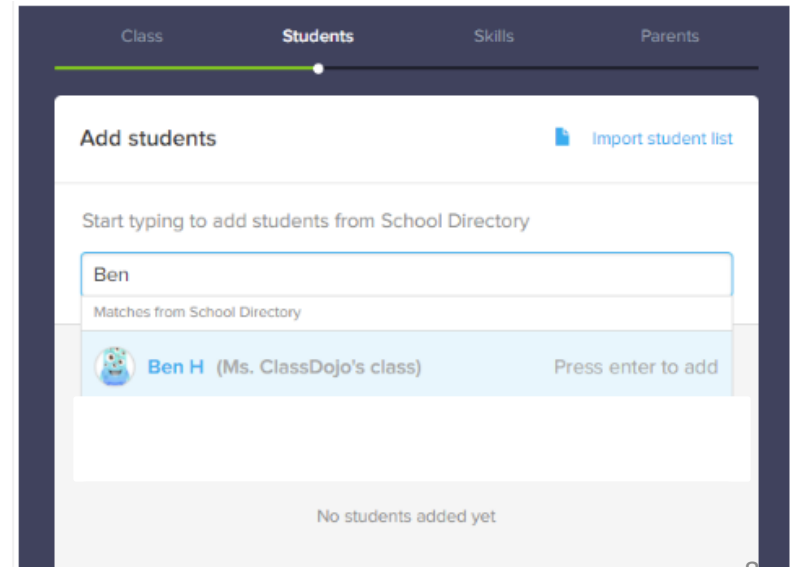


Create a Class and Student(s)

- A teacher can create a new class by specifying the class name and selecting the grade (see picture 1).
- The new class is associated with the teacher who created the class. This is the teacher who is responsible for the class. A class has to have exactly one teacher being responsible for it. A teacher can be responsible for many classes.
- If the teacher is verified (see page “Teacher Accounts”), the class will also be associated with the school the teacher is currently teaching at.
- The teacher can then select students from the school’s directory (see picture 2) (the name of the student appears with the last (or current) class the student was (is) in).
 - If selected, the student will be associated with the class.
 - If the teacher does not add at least one student, the class is not created.
- Students can be added to or removed from the class at a later time.



The screenshot shows the 'Reading' class creation interface. At the top, there's a header 'Reading' and a tab bar with 'Basic Info', 'Students', 'Parents', and 'Skills'. The 'Basic Info' tab is active. Below it, there's a section titled 'Edit class'. In the center, there's a red circular icon with a yellow book. Below the icon, there are two input fields: 'Class name' with the value 'Reading' and 'Grade' with a dropdown menu showing '3rd Grade'. At the bottom right, there are two buttons: 'Cancel' and 'Next'.



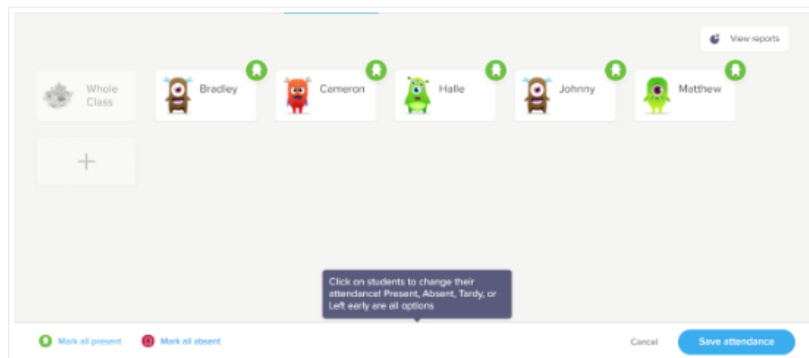
The screenshot shows the 'Add students' interface. At the top, there's a header 'Class' and a tab bar with 'Class', 'Students', 'Skills', and 'Parents'. The 'Students' tab is active. Below it, there's a section titled 'Add students' with a link 'Import student list'. Below that, there's a text prompt 'Start typing to add students from School Directory'. A search input field contains the text 'Ben'. Below the input field, there's a section titled 'Matches from School Directory' with a list of results. The first result is 'Ben H (Ms. ClassDojo's class)' with a 'Press enter to add' button. At the bottom, there's a message 'No students added yet'.

Delete a Class

- A class cannot be deleted but is archived. The system will need to remember the date of archival.
- Once the class is archived, parents and students do not have access to the class, student feedback, or stories anymore.

Take Attendance

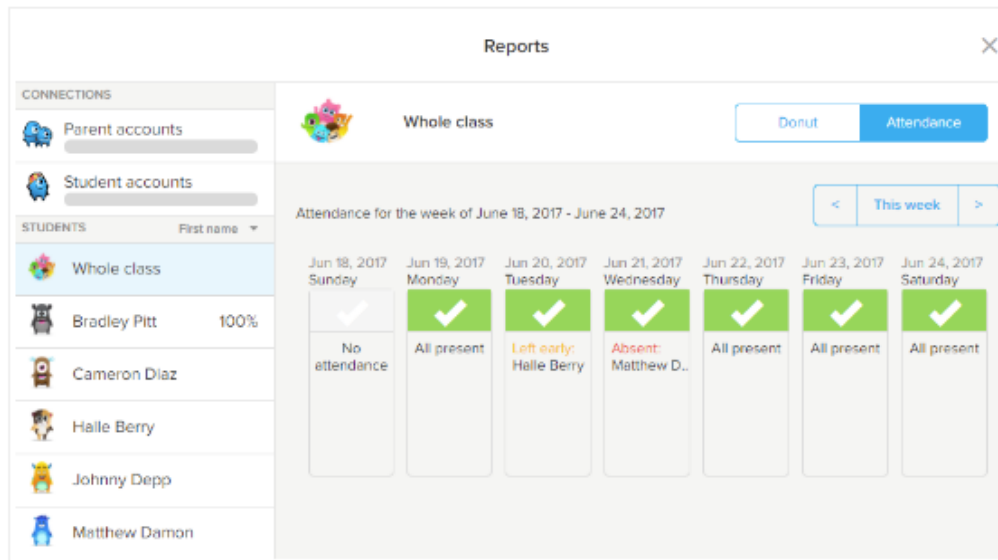
- Every day, the teacher may take attendance. The teacher opens the class and selects the “attendance” option.
- The teacher can then select individual students or all students and set the attendance status to “present”, “absent”, “tardy”, or “left early”.
- The teacher saves attendance once all students’ attendance are marked.
- The system will store the attendance for the day. The teacher can edit the attendance for the day, e.g., if a student leaves earlier.
- In the application, a student who is absent cannot receive points. Attendance is done for each day and attendance will reset at midnight.
- This means that for each student and class there is one attendance status for one day. Daily attendance is for exactly one student and one class.



Picture from:
<https://classdojo.zendesk.com/hc/en-us/articles/203969355-How-to-Take-Attendance#web>

Attendance Reports

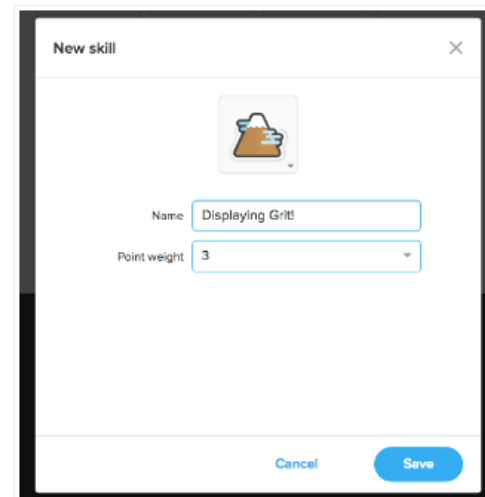
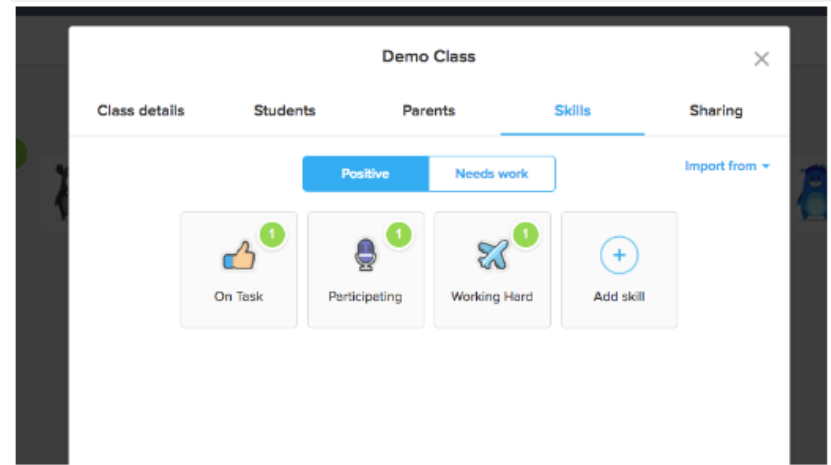
- A teacher can print out attendance reports.
- The teacher opens the class and selects to view reports and selects the date range and students.
- An example report is shown below.
- The percentage next to a student names shows the student's attendance compared to total attendance for the time range selected.



Picture from: <https://classdojo.zendesk.com/hc/en-us/articles/202794135-View-and-Print-Attendance-Reports#web>

Manage Skills

- A teacher can specify skills for a class. If a student exhibits these skills (or behaviors) the teacher can award points (see next page).
- A teacher will select the class to which a behavior is to be added and then selects “skills”.
- For each skill, the name, and icon, and a point weight (values 0 to 5) is specified.
 - Skills can be either positive or negative (called “needs work” in the application) behavior. Selecting a point 5 for a negative skill becomes -5 when giving points to a student.
 - Skills are associated with classes and not teachers. A skill is associated with exactly one class. A class can have at most twelve negative and twelve positive skills.
- A teacher can also edit or delete the skills.

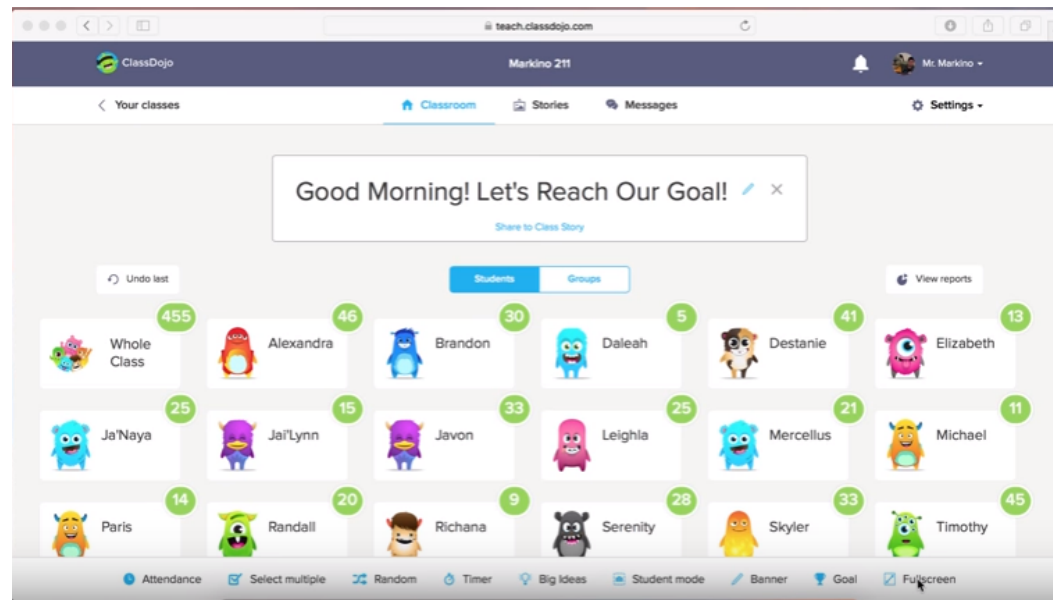


Give Feedback (Points) to Students

- Teacher can give feedback to students for certain behaviors (skills). Each feedback has a point value.
- The teacher opens the class and selects either the whole class or individual students.
- The teacher selects a skill from the skill list (see page “manage skills”) and assigns it to the student(s).
- The system will store this feedback about a behavior.
 - The feedback will need to be associated with the teacher who gave that feedback, the class in which the feedback was given, the student to whom the feedback was given, and store the date and time as well as the points for the skill selected (see point weight on page “manage skills”). Please note that negative behavior will result in negative points. Since feedback can be given to an individual student or the whole class, this needs to be stored as well.
 - A text note can be added to a feedback that gives more information why a feedback was given. The maximum size of the note is 200 characters.

Showing Points in ClassDojo

- The points that are awarded with the feedback are displayed in the class list in a bubble next to the student name.
- The teacher can decide whether the points should consider both negative and positive skills, or show separate totals for negative and positive skills. This choice needs to be stored for each class.
- These current points for the whole class and each student in a class need to be stored.

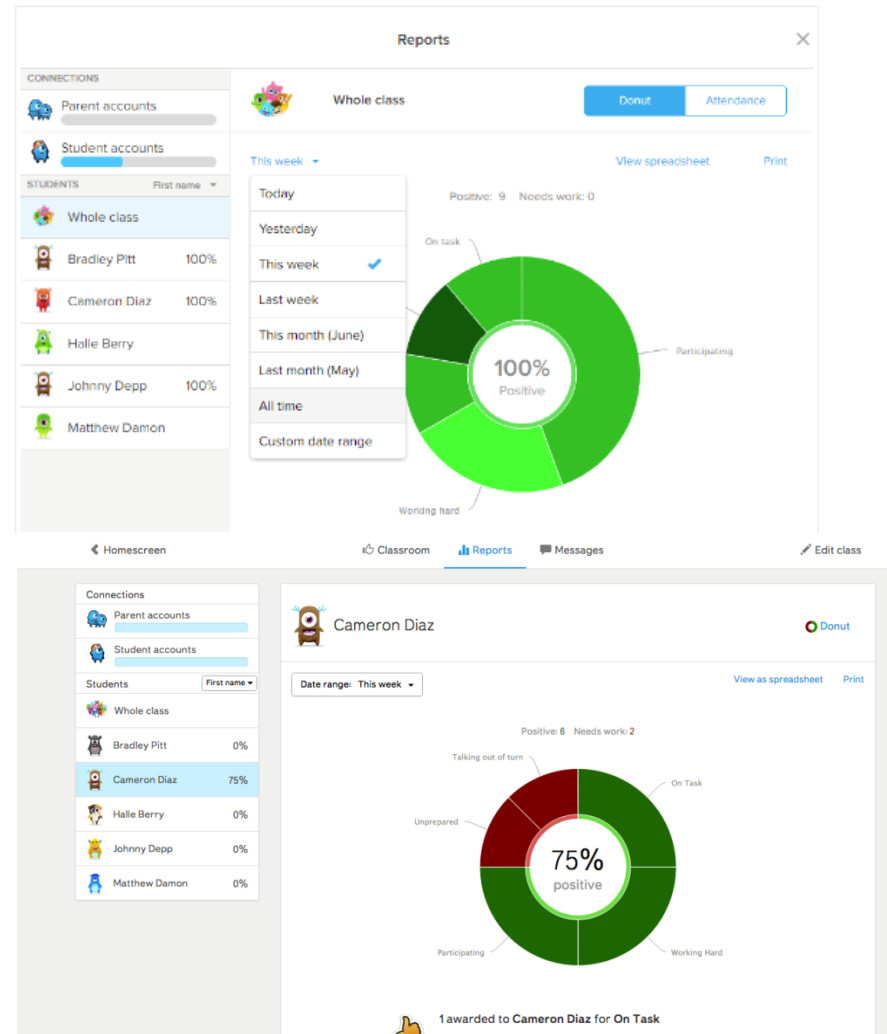


Resetting Points in Bubbles in ClassDojo

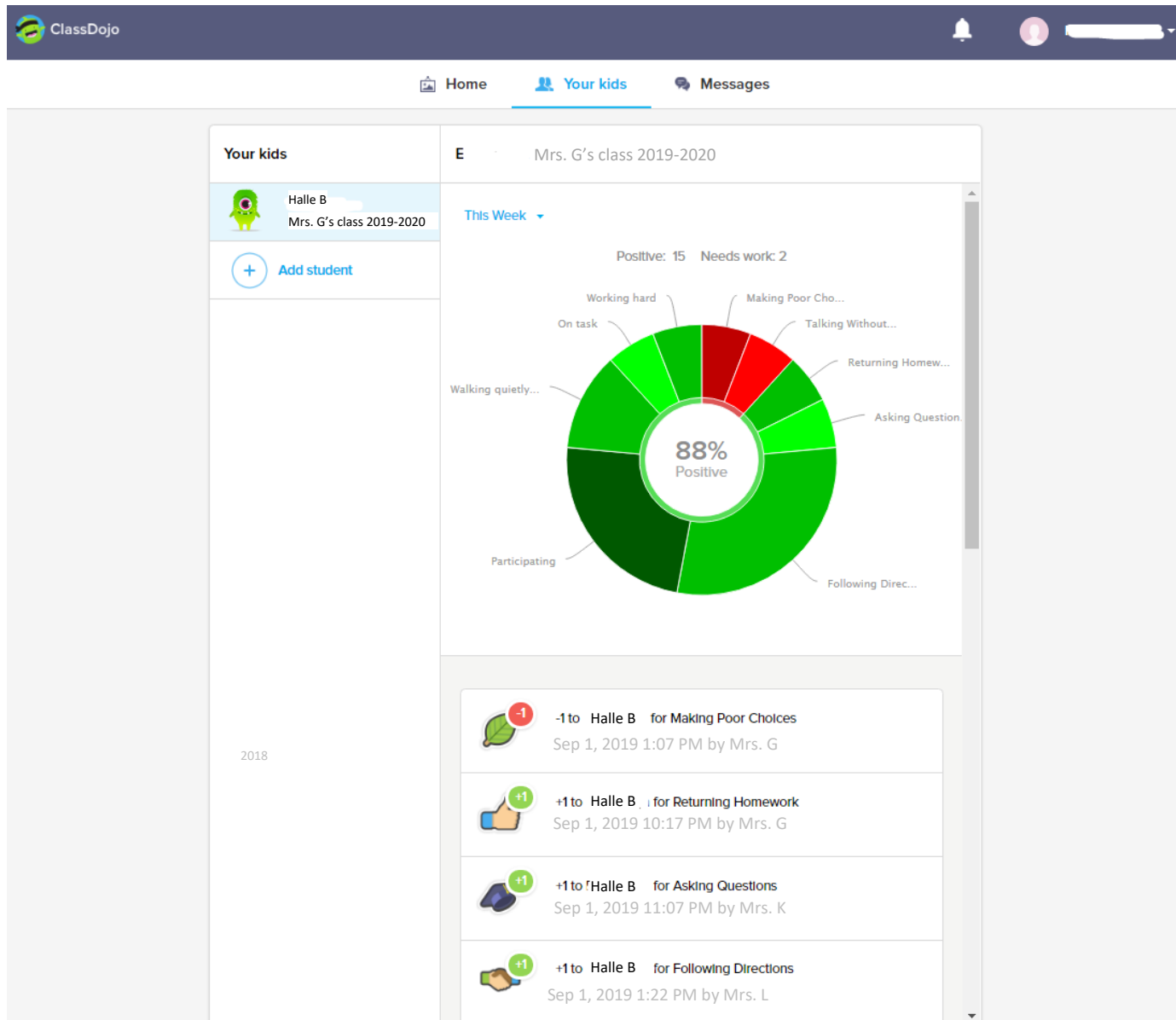
- The points can be reset. The current points for the class and each student in a class are set to zero.
- This reset does not delete the feedback given to a student, but only the total current points.

View Feedback and Points (Teacher)

- The teachers opens the class and selects to view reports.
- The default view is the “Donut” view. Here, the points distribution and skills are shown in a donut shape.
- The teacher can select a time range and either select the whole class or individual students.
- The percentage next to a student names shows the percentage of positive behavior points to total points possible.



Parent View



Sharing Classes with other Teachers

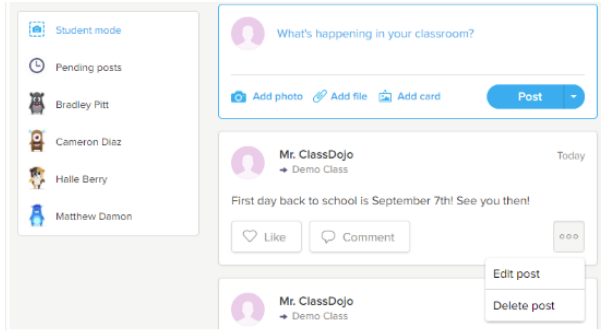
- The teacher responsible for the class can invite other teachers to the class.
- The teacher opens the class and selects to add a teacher.
- The teacher selects the teacher from the list of teachers at the school.
- The system will associate the teacher with the class.
- Please note that there will be exactly one teacher who is responsible for the class. But a class can have many teachers teaching the class. A teacher can be responsible for many classes. A teacher can be teaching many classes.
- Once a teacher is added, the class will appear when the teacher logs into ClassDojo. The teacher can access the class and give feedback to students, view performance reports, and add student and class stories. The teacher teaching a class cannot edit a class or add new skills.

Stories

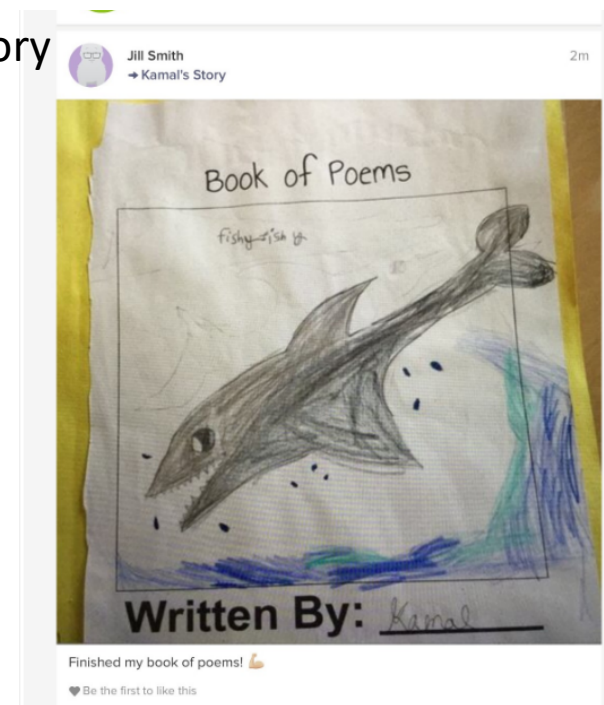
- A story allows a teacher, student, or a school's ClassDojo mentor to share announcements and photos with the parents, teachers, and students.
 - A teacher can share stories that are associated with a class. Parents, students, and teachers from the class can see the class story.
 - A teacher opens the class and selects to create a story. The teacher can add text and a picture. The system needs to store the date, class, and the teacher.
 - A student can share stories and parents, students, and teachers of the class can see the student story.
 - The teacher needs to set up student stories for a class. A story code for a class is created that students can use to share their story. This story code is unique but can be changed.
 - A student logs into his or her account and uses the story code to create a new story. The student can add a text and picture. The system needs to store the date, class, teacher, and student for the story. Student stories need approval by the teacher before publishing. The status (approved, not approved) needs to be stored in the system.
 - A ClassDojo mentor can share stories and parents, students, and teacher from current (non-archived) classes of the school can see the school story.
 - The ClassDojo mentor can add a story with a picture and text. The system will store the date and the school for which a story is published.
- For all three story types, a publish date and time can be set. The story is not visible before this date.
- Parents can like each of the three story types.
 - The system will need to remember which parent liked a story. A parent can remove a like from a story.
- For each of the three story types, the system needs to be able to tell which parent viewed a story.
- Parents can comment on class stories. Comments for each class story can be disabled or enabled.
 - Comments include a date and text.

Example Story

Stories in Teacher Feed



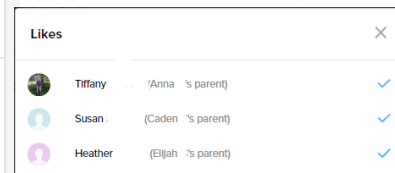
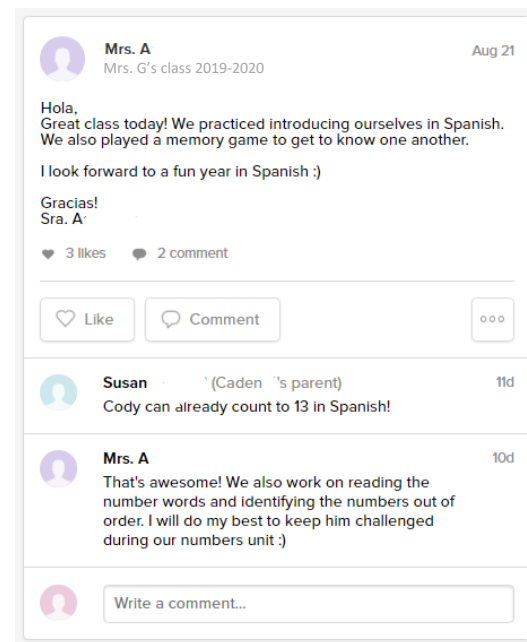
Student Story



School Story






Class Story (with two comments and 3 likes)




Pictures from: <https://classdojo.zendesk.com/hc/en-us/articles/209685943-What-is-School-Story-#web>, <https://classdojo.zendesk.com/hc/en-us/articles/207213736-How-to-Edit-a-Class-Story-Post#web>, <https://classdojo.zendesk.com/hc/en-us/articles/211828723-What-are-Student-Stories-#web>

Parent Homepage with Stories

 ClassDojo



[Home](#) [Your kids](#) [Messages](#)

**Mrs. A**
→ Mrs. G's class 2019-2020
Aug 28

Buenos Dias,
This week we practiced meeting someone for the first time. Students had to find a partner, greet them with "Hola", shake hands, tell their name using "Me llamo (name)", and say "Adios". Mrs. Gutz's students did it with ease! Challenge them to try it at home :) They will impress you!


Gracias,
Sra. A

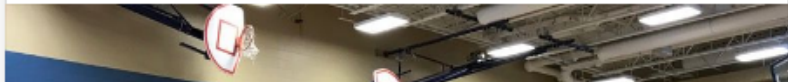
♥ 1 like

♥ Like


💬 Comment


⋮

**Mrs. G**
→ Mrs. G's class 2019-2020
Aug 27




Connected classes

 Mrs. G's class 2019-2020
Mrs. G
☐

 [Add another parent code](#)

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