

Juntos Project Initial Report

Educators' Baseline Assessment
Cleaning and Recommendations

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Juntos Project Description

Study and intervention details

The *Juntos* Project was a three-year study led by the University of Oregon's Center for Equity Promotion [CEQP](#). The project developed a culturally specific family–school partnership intervention, *Conexiones: Families and Schools United for Equity* (hereafter referred to as *Conexiones*), designed to enhance Latino parents' and educators' capacities to effectively support Latino student success.

The *Conexiones* curricula was built on Latino cultural assets, addressed common challenges confronting immigrant students and families in terms of school success, and utilized effective strategies for increasing educators' awareness of Latino cultures and the barriers that exist for Latino immigrant students and families in schools. It also focused on building effective family-school communication and partnerships with the aim of improving Latino students' academic success.

The six participating schools belonged to three different school districts in the state of Oregon and were randomly assigned to either a control group or a intervention group that received the *Conexiones* intervention program. Study participants completed assessments at three different time points (baseline, immediately post-intervention, and 12-month post-intervention). The complete dataset in the project is made of three waves of data with separate assessments for each participant type (parents, students, and educators).



Report details

This report focuses only on the educators' baseline assessment and is intended to describe the data cleaning process with the aim of guiding CEQP's researchers and data analysts in the procedures performed to the dataset. A secondary aim is to help CEQP staff with data management responsibilities to replicate these procedures in subsequent waves of data and future projects.

The report will also include a brief description of the sociodemographic characteristics of the study participants, the scale creation process, the average scores of participants' responses in regards to major study constructs, and recommendations for data management and cleaning.

In the appendix section, data analysts interested in using this dataset will find a codebook with all the items, variable names, and response options.



Data Cleaning procedures

The following section describes the data cleaning procedures I performed in the baseline assessment of the educators' dataset.

I performed data cleaning procedures using the [R](#) and [R Studio](#) softwares, but had in mind that end users of the cleaned datasets will likely be SPSS users, thus, I exported the cleaned dataset to a [.sav](#) file.

The dataset

The raw dataset had 43 observations and 202 variables of which 17 were metadata variables created by Qualtrics, the software used to develop the assessment surveys. Of the 43 observations, one case, participant with `id` 153 had incomplete data. I called the raw dataset downloaded directly from Qualtrics as `w1_raw_elt` which stands for wave one of the raw data from the equity leadership team (i.e. elt).

Initial cleaning

In the following code, I created a new dataframe `elt_w1_clean` where I selected out all but one of the metadata variables, `response_id`. This variable is an unique identifier assigned by Qualtrics that resulted handy in dealing with duplicated ids.

Other simple data cleaning procedures are noted in the comments marked with a # sign. I used the [clean_names](#), [select](#), [rename](#), and [arrange](#) functions.

```
elt_w1_clean <- w1_raw_elt %>%  
  clean_names() %>% # function that formats variables' names  
  select(-1:-8, -10:-17, -202) %>% # selecting out columns with metadata  
  rename(c("id" = "pj")) %>% # renaming id variable.  
  arrange(id) # ordering participants ids in descending order
```

Dealing with duplicated ids

When evaluating if the dataframe had duplicated ids, I found that `id` 257 was duplicated and there was no `id` 254.

In the table below, I am just showing a few variables and participants from `school` 2.

response_id	id	school	q1	q2	q3
R_1NsKbbg0xSNm9DI	251	2	3	3	2
R_Xvok02kOfilkV3	252	2	3	3	4
R_294kWxlg2imaph1	253	2	4	3	3
R_3NEywl5hBzdP9Kt	255	2	3	2	3
R_3McjQ3QdB3iSnbT	256	2	4	3	4
R_6EELe7Uuwi9W7zX	257	2	2	2	3
R_3IRUos8weYHpWB1	257	2	4	3	3

After checking with CEQP's research assistant, I corroborated that one of the duplicated cases of `id` 257 in fact was `id` 254. I fixed this mistake with the code below using the `response_id` variable and the [mutate](#) and [case_when](#) functions.

The combination of these two functions is creating a new variable (that I am naming the same as it was, `id`) to follow the condition that if the variable `response_id` has the "R_6EELe7Uuwi9W7zX" value, the `id` value should be recoded as "254".

```
elt_w1_clean <- elt_w1_clean %>%
  mutate(id = case_when(response_id == "R_6EELe7Uuwi9W7zX" ~ "254",
                        TRUE ~ as.character(id))) %>%
  arrange(id)
```

Dealing with survey coding errors

The id protocol followed in CEQP projects is very straightforward. They use three digits for each individual participant id and use the first of these three digits to indicate the school id. In this system, ids in the 100's would belong to school 1, ids in the 200's to school 2, and so on.

By visual inspection I identified that the first digit of the individual ids in the `id` variable did not correspond to the ids in the school id variable `school` for schools 3, 4, 5, and 6. In the table below, I selected four variables and only the first row of data of each of the six schools to illustrate this point.

id	school	q1	q2	q3
150	1	4	3	3
250	2	4	4	3
350	4	4	3	3
450	3	3	3	3
550	6	3	3	3
650	5	4	3	3

As can be seen in the table above, ids in the 300's are coded to belong to `school 4` and ids in the 400's are coded to belong to `school 3`. I am calling this flip-flopped school ids. Schools 5 and 6 were also flip-flopped.

At first, I thought that this could be due to an error in the data exporting process and it seemed like an easy enough fix to make. I thought I just needed to recode the names of the levels of the `school` variable. Later I found that this fix did not solve the issue. It took me a couple of months to identify that the error was coded in the Qualtrics survey.

The images below are screenshots of the same raw data SPSS file downloaded directly from Qualtrics. In figure 1, it can be seen that when the *value labels* button is “on” (i.e. showing value labels and not values), it appears as if there was no flip-flop because the names of the schools coincided with the numbers that were assigned to them. Indeed, school “K” was school 3 and school “A” was school 4 and its participants were identified with ids in the 300’s and school “A” was school 4 and its participants were identified with ids in the 400’s, and so on.

SPSS Data View window showing raw data. The 'Value Labels' button in the toolbar is highlighted with a red circle and labeled 'With value labels on'. Red arrows point to the 'School' column and the data rows.

	PJ_	School	Participant_role_5_EXT	Participant_role_6_EXT	Q1	Q2	Q3	Q4	Q5
1	150	C	Admin... -99	-99	Strong...	Agree	Agree	Strong...	Strong...
2	151	C	Other ... Registrar	-99	Strong...	Agree	Agree	Strong...	Agree
3	152	C	Other ... -99	Special Education Te...	Strong...	Agree	Agree	Agree	Strong...
4	153	C	Other ... Educational Assistant	-99	Strong...	Agree	Agree	Agree	Agree
5	154	C	Aduca... -99	-99	Agree	Strong...	Agree	Strong...	Agree
6	155	C	Teacher -99	-99	Strong...	Agree	Agree	Strong...	Strong...
7	250	P	Admin... -99	-99	Strong...	Strong...	Agree	Strong...	Agree
8	251	P	Teacher -99	-99	Agree	Agree	Disagr...	Disagr...	Disagr...
9	252	P	Teacher -99	-99	Agree	Agree	Strong...	No Re...	Agree
10	253	P	Teacher -99	-99	Strong...	Agree	Agree	Strong...	Agree
11	255	P	Other ... Educational Assistant	-99	Agree	Disagr...	Agree	Strong...	Agree
12	256	P	Couns... -99	-99	Strong...	Agree	Strong...	Strong...	Agree
13	257	P	Aduca... -99	-99	Disagr...	Disagr...	Agree	Agree	Agree
14	257	P	Other ... Media Coordinator	-99	Strong...	Agree	Agree	Agree	Agree
15	350	K	Admin... -99	-99	Strong...	Agree	Agree	Agree	Agree
16	351	K	Aduca... -99	-99	Agree	Disagr...	Disagr...	Agree	No Re...
17	352	K	Teacher -99	-99	Agree	Strong...	Disagr...	Disagr...	Disagr...
18	353	K	Teacher -99	-99	Strong...	Strong...	Agree	Agree	Agree
19	354	K	Teacher -99	-99	Strong...	Disagr...	Agree	Strong...	Agree
20	355	K	Teacher -99	-99	Strong...	Agree	Agree	Agree	Agree
21	450	A	Admin... -99	-99	Agree	Agree	Agree	Agree	Agree
22	451	A	Admin... -99	-99	Strong...	Agree	Strong...	Disagr...	Disagr...
23	452	A	Other ... Registrar	-99	Agree	No Re...	Disagr...	No Re...	No Re...
24	453	A	Teacher -99	-99	Agree	Agree	Agree	Agree	Agree
25	454	A	Teacher -99	-99	Strong...	Agree	Agree	Agree	Agree
26	455	A	Teacher -99	-99	Strong...	Strong...	Agree	Agree	Agree
27	456	A	Couns... -99	-99	Strong...	Agree	Agree	Agree	Disagr...
28	457	A	Other ... Attendance Clerk	-99	Agree	Agree	Agree	Agree	Agree

Figure 1: Value labels button on.

This changed when the *value labels* button was “off”. In the image below, the flip-flopped school ids is evident again:

	PJ_	School	Participant_role_5_T	Participant_role_6_T	Q1	Q2	Q3	Q4	Q5
1	150	1	1 -99	-99	4	3	3	4	4
2	151	1	5 Registrar	-99	4	3	3	4	3
3	152	1	6 -99	Special Education Te...	4	3	3	3	4
4	153	1	5 Educational Assistant	-99	4	3	3	3	3
5	154	1	4 -99	-99	3	4	3	4	3
6	155	1	2 -99	-99	4	3	3	4	4
7	250	2	1 -99	-99	4	4	3	4	3
8	251	2	2 -99	-99	3	3	2	2	2
9	252	2	2 -99	-99	3	3	4	99	3
10	253	2	2 -99	-99	4	3	3	4	3
11	255	2	5 Educational Assistant	-99	3	2	3	4	3
12	256	2	3 -99	-99	4	3	4	4	3
13	257	2	4 -99	-99	2	2	3	3	3
14	257	2	5 Media Coordinator	-99	4	3	3	3	3
15	350	4	1 -99	-99	4	3	3	3	3
16	351	4	4 -99	-99	3	2	2	3	99
17	352	4	2 -99	-99	3	1	2	2	2
18	353	4	2 -99	-99	4	4	3	3	3
19	354	4	2 -99	-99	4	2	3	4	3
20	355	4	2 -99	-99	4	3	3	3	3
21	450	3	1 -99	-99	3	3	3	3	3
22	451	3	1 -99	-99	4	3	3	4	2
23	452	3	5 Registrar	-99	3	99	2	99	99
24	453	3	2 -99	-99	3	3	3	3	3
25	454	3	2 -99	-99	4	3	3	3	3
26	455	3	2 -99	-99	4	4	3	3	3
27	456	3	3 -99	-99	4	3	3	3	2
28	457	3	5 Attendance Clerk	-99	3	3	3	3	3

Figure 2: Value labels button off

This survey coding error meant that the `school` variable’s value labels properly corresponded to the participants’ ids, but the variable’s values did not. Instead of recoding the values, I decided to create a new variable called `school_id` and delete the flawed original variable `school`.

In the code below, I created a new dataframe `elt_w1_clean_2` where I used the first digit of the individual participant id variable `id` as the reference for the new `school_id` variable, following CEQP’S id protocol. I also created a new variable called `condition` to indicate which schools were randomly assigned to the control group (coded as 1) or to the intervention group (coded as 2).

I coded schools identified with a `school_id` odd number (1, 3, and 5) as the control schools and the schools identified with an even number (2, 4, and 6) as the intervention schools, as directed by CEQP’s research assistant. Finally, I also created a `wave` variable to indicate the wave of the data. Note that I am creating all of these new variables with the [mutate](#) function.

```
elt_w1_clean_2 <- elt_w1_clean %>%
  mutate(school_id = str_sub(id, 1, 1), # new school id variable
    condition = case_when(
      school_id == "1" | school_id == "3" | school_id == "5" ~ "1",
      school_id == "2" | school_id == "4" | school_id == "6" ~ "2")) %>% # new
    condition variable
  select(school_id, condition, everything()) %>%
  add_column(wave = 1, .before = 9) %>% # new wave variable
  select(- school) # selecting out (i.e. deleting) school variable
```

The `condition` and `school_id` variables I created in the previous code were string variables. In the code below I created a new dataframe `elt_w1_clean_3` where I coerced these variables to be numeric so they can be used in quantitative analyses using the `as.numeric` function. I also added value labels with the `set_vall` function so that SPSS users can use the *value labels* button.

In the code below I also fixed a response option coding error I identified in the variable `q68`. Throughout most of the survey, response options were coded as “Strongly Disagree” = 1, “Disagree” = 2, “Agree” = 3, “Strongly Agree” = 4, “No response” = 99; however, in variable `q68` the response option “No response” was coded as “5”.

I fixed this using the `ifelse` function, specifying that if this variable had a response of 5, it should be changed to 99. Finally, I set the variable and value labels with the `set_varl` and `set_vall` functions, respectively, because sometimes procedures performed with certain functions strips out these labels.

```
elt_w1_clean_3 <- elt_w1_clean_2 %>%
  mutate(condition = as.numeric(condition),
    condition = set_vall(condition, c("control" = 1, "intervention" = 2)),
    school_id = as.numeric(school_id),
    school_id = set_vall(school_id, c("cascade" = 1, "prairie_mountain" = 2, "kelly" =
= 3, "ata" = 4, "briggs" = 5, "agnes_stewart" = 6)),
    q68 = ifelse(q68 == 5, 99, q68),
    q68 = set_varl(q68, "When I communicate with Latino families, I keep in mind
    that many Latino parents may not understand how to navigate the educational
    system in this
    country."),
    q68 = set_vall(q68, c("Strongly Disagree" = 1, "Disagree" = 2, "Agree" = 3,
    "Strongly Agree" = 4, "No response" = 99)))
```

Dealing with split out responses

In this dataset, several multiple choice variables that were originally meant to have a single answer, were spread out as if they allowed to have multiple answers. I believe this was because in the Qualtrics survey development process, the option for *Multiple answer* was selected, instead of *Single answer*.

The screenshot shows the Qualtrics survey development interface. At the top, there are tabs for Survey, Actions, Distributions, Data & Analysis, and Reports. Below the tabs are buttons for Preview, Publish, and Search. The main area is titled "Untitled Project" and contains a "Default Question Block". Inside the block, there is a question labeled "Q2: How comfortable are you speaking Spanish?" with five options: "Extremely comfortable", "Somewhat comfortable", "Neither comfortable nor uncomfortable", "Somewhat uncomfortable", and "Extremely uncomfortable". To the right of the question, under "Change Question Type", the "Multiple Choice" option is selected (indicated by a red circle). Below this, under "Choices", there is a section for "Answers" where "Multiple Answer" is selected (also indicated by a red circle). Other options like "Single Answer", "Dropdown List", "Select Box", and "Multi Select Box" are also listed.

Figure 3: Qualtrics survey development

When this happens, participants could select mutually exclusive options, like this:



Figure 4: Qualtrics survey preview

When *Multiple answer* is selected, Qualtrics splits these multi-value fields into columns, assigning a value of 1 if a response option is chosen and a value of 0 if a response option is not chosen. In the following code, I collapsed the Spanish variable that was split out so it could be easily used in analyses. To avoid overwhelming the reader, I am omitting the code I used to collapse other language variables. I used the same procedure in all of these variables.

In the code below, the function `pivot_longer` makes the dataframe “long” as it increases the number of rows and decreases the number of columns. This function gathers variables’ names under the new variable `item_2` and gathers the values of these variables under the new variable `spanish_comfort`. Then, I chose only the options that had a value of 1, indicating when a participant chose that response option.

Finally, I recoded the response options to follow this scheme: “Not at all comfortable” = 1, “Somewhat comfortable” = 2, “Comfortable” = 3, “Very comfortable” = 4, “No response” = 99.

```
# collapsing spanish variables
spa <- elt_w1_clean_3 %>%
  select(id, starts_with("q132_2")) %>% # creating a dataframe with only the id and
  Spanish variables
  pivot_longer(
    cols = starts_with("q132_2"),
    names_to = "item_2",
    values_to = "spanish_comfort",
    values_drop_na = TRUE) %>%
  filter(spanish_comfort == 1) %>%
  mutate(spanish_comfort = case_when(item_2 == "q132_2_1" ~ "1",
                                      item_2 == "q132_2_2" ~ "2",
                                      item_2 == "q132_2_3" ~ "3",
                                      item_2 == "q132_2_4" ~ "4",
                                      item_2 == "q132_2_99" ~ "99",
                                      TRUE ~ as.character(spanish_comfort))) %>%
  select(-item_2) # selecting out variable with repetitive information
```

When all the language variables were collapsed I checked if there were duplicated cases and I found that participant identified with `id` 454 chose response option “1” and response option “2”.

id	spanish_comfort
451	3
452	3
453	2
454	1
454	2
455	2
456	1
457	2
458	2

Because I can only assume that this was an entry error given that the choices are, in theory, mutually exclusive: “Not at all comfortable” = 1, vs. “Somewhat comfortable” = 2, I used the [distinct](#) function to retain only unique values.

For this case, option 1 = “Not at all comfortable” was retained as the function “assumes” the second option is the duplicative.

```
spa_2 <- spa %>%
  distinct(id, .keep_all = TRUE)
```

id	spanish_comfort
451	3
452	3

454	1
455	2
456	1
457	2
458	2

The last step in this process was joining the dataframe I created with all the language variables I collapsed (`all_lang_vars`) and the `elt_w1_clean_3` dataframe that had the remaining variables. I used the [left_join](#) function to do this.

In this new dataframe `elt_w1_clean_4` I also coerced the language variables to become numeric so they could be used in quantitative analyses and added the value labels so that SPSS users can use the *value labels* button. I used the code below to do this.

```
elt_w1_clean_4 <- left_join(elt_w1_clean_3, all_lang_vars) %>%
  select(-starts_with("q132_")) # selecting out language variables included now in
  new language Variables

elt_w1_clean_4 <- elt_w1_clean_4 %>%
  mutate(english_comfort = as.numeric(english_comfort),
    english_comfort = set_vall(english_comfort, c("not at all comfortable" = 1,
    "somewhat comfortable" = 2, "comfortable" = 3, "very comfortable" = 4, "no
    response" = 99)),
    spanish_comfort = as.numeric(spanish_comfort),
    spanish_comfort = set_vall(spanish_comfort, c("not at all comfortable" = 1,
    "somewhat comfortable" = 2, "comfortable" = 3, "very comfortable" = 4, "no
    response" = 99)),
    other1_lang_comfort = as.numeric(other1_lang_comfort),
    other1_lang_comfort = set_vall(other1_lang_comfort, c("not at all
    comfortable" = 1, "somewhat comfortable" = 2, "comfortable" = 3, "very
    comfortable" = 4, "no response" = 99)),
    other2_lang_comfort = as.numeric(other2_lang_comfort),
    other2_lang_comfort = set_vall(other2_lang_comfort, c("not at all
    comfortable" = 1, "somewhat comfortable" = 2, "comfortable" = 3, "very
    comfortable" = 4, "no response" = 99)))
```

As shown, the following variables were the result of the collapsing process described above: `english_comfort`, `spanish_comfort`, `other1_lang_comfort`, and `other2_lang_comfort`.

Renaming demographic variables

In the code below, I created a new dataframe `elt_w1_clean_5` where I used the `rename` function to rename some of the demographic variables that I used to describe participants's characteristics in the next section of this report. This function uses a “new name” = “old name” pattern. Very straightforward!

At the end I selected out a few variables that did not have meaningful information. For instance, variable `q127` was a response/no response question that only indicated if participants chose to answer it. The meaningful information was contained in variable `q127_1_text` that was renamed as `age`, which I also coerced to become a numeric variable.

```
elt_w1_clean_5 <- elt_w1_clean_4 %>%  
  rename(c("age" = "q127_1_text"),  
         c("birth_country" = "q128"),  
         c("another_birth_country_text" = "q128_2_text"),  
         c("age_first_moved_us" = "q129_1_text"),  
         c("white" = "q130_1"),  
         c("hispanic_latino_spanish" = "q130_2"),  
         c("black_african_american" = "q130_3"),  
         c("asian" = "q130_4"),  
         c("american_indian_alaska_native" = "q130_5"),  
         c("indigenous_americas" = "q130_6"),  
         c("middle_eastern_north_african" = "q130_7"),  
         c("native_hawaiian_pacific_islander" = "q130_8"),  
         c("race_ethnicity_other" = "q130_9"),  
         c("race_ethnicity_no_response" = "q130_99"),  
         c("indigenous_americas_text" = "q130_6_text"),  
         c("race_ethnicity_other_text" = "q130_9_text"),  
         c("gender_id" = "q131"),  
         c("years_in_position" = "q133"),  
         c("years_in_school" = "q134"),  
         c("equity_leadership" = "q135_1"),  
         c("cultural_responsiveness" = "q135_2"),  
         c("restorative_practices" = "q135_3"),  
         c("diversity" = "q135_4"),  
         c("ell" = "q135_5"),  
         c("cont_ed_other" = "q135_6"),
```

```
c("cont_ed_na" = "q135_88"),
c("cont_ed_no_response" = "q135_99"),
c("cont_ed_other_text" = "q135_6_text")) %>%
mutate(age = as.numeric(age)) %>% # making variable numeric for QUAN analyses
select(-q127, -q129, -q131_3_text) # selecting out because they did not have
meaningful info
```

Participant descriptives

In the following section, I used descriptive statistics to summarize participants' characteristics. In this analysis, I treated responses such as "99 = not applicable" or "88 = no response" as missing values. Other category of missing values were responses coded by Qualtrics as "-99 = seen but unanswered", when participants were not forced to respond.

In the code below I created a new dataframe called `elt_w1_clean_6` where I applied a function I created `recode_missing_df` (code of the function not shown) to recode the 88, 99, and -99 values as `NA`, the way R codes missing values.

```
elt_w1_clean_6 <- recode_missing_df(elt_w1_clean_5)
```

The downside of this function is that it strips out the variable and value labels, but having `NA` instead of the 88, 99, and -99 values is required to perform analyses in R.

For this reason, the final dataset that will be exported to an SPSS file will still have the 88, 99, and -99 values. In the final cleaned dataset, SPSS users should manually code these values before performing analyses as *system myssing*.

Educator's characteristics

Educators in this first wave of data ($n = 43$) had a mean age of 42.89 years, with an age range between 24 and 62 years of age (see figure 5). The majority of educators were identified as female (74%).

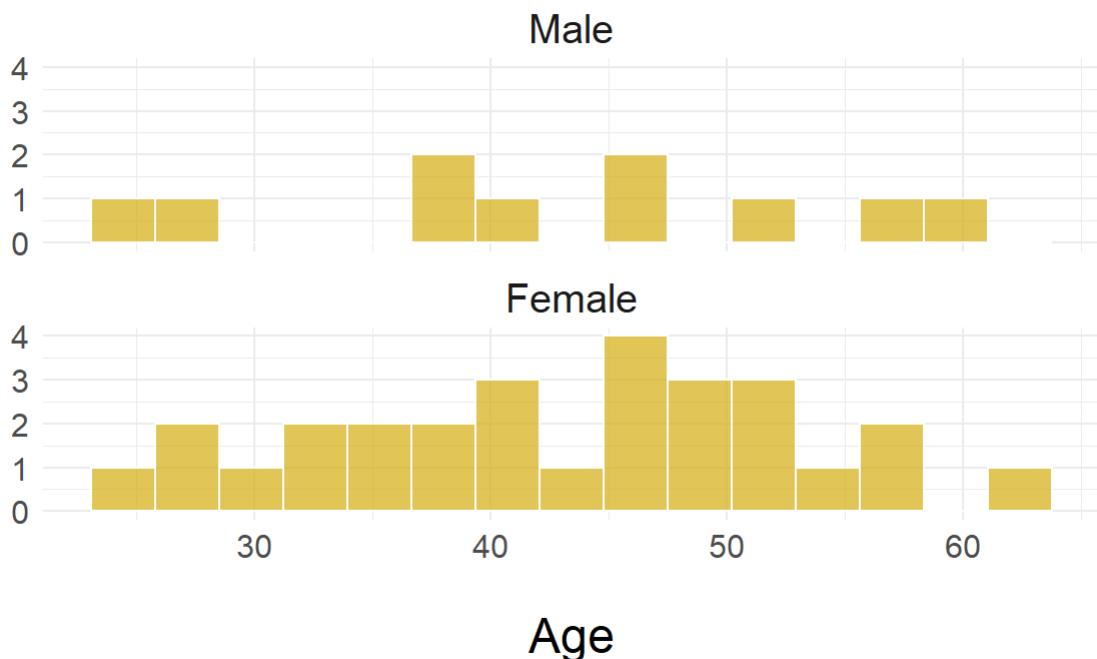


Figure 5: Educator's Age by gender

A little less than half of the educators were teachers (49%), followed by administrators (16%) and other classified staff (16%). The remaining of the sample (19%) was comprised of educational assistants, counselors, and other certified staff. A little more than half of the educators had been in their current career position, regardless of school site, for over 10 years. About 12% of the educators had been in their current career position for less than a year.

All but four of the educators were born in the United States (U.S.). These four educators traced back their roots to Mexico or El Salvador and report coming for the first time to the U.S. when they were between 11 and 24 years of age. The entirety of the educators in the sample felt either *very comfortable* or *comfortable* speaking in English, but only about 20% felt the same way speaking in Spanish.

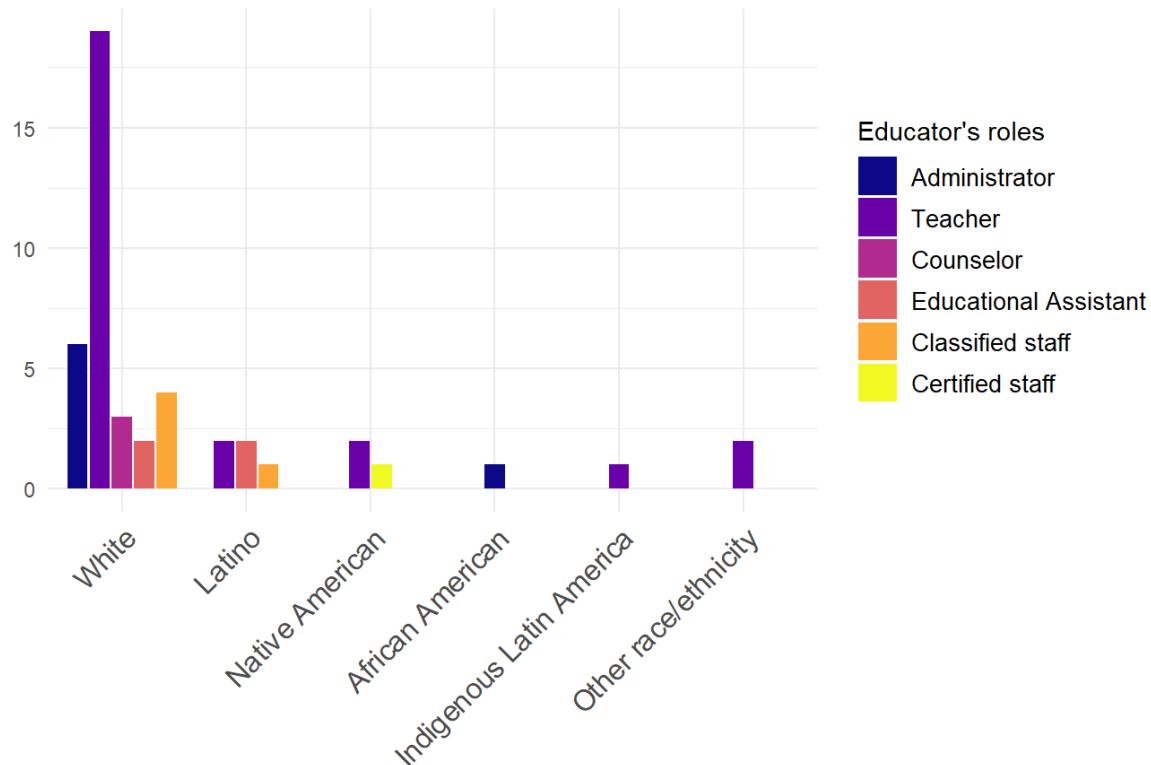


Figure 6: Educator's Races/Ethnicities and Roles

As can be seen in figure 6, educators in this sample were overwhelmingly White (81%). Other educators identified as Latino (12%), Native American (7%), Indigenous from Latin America (2%), and African American (2%). Roughly 5% identified as other race/ethnicity [1](#).

Study constructs' scales

In this section, I describe the scale creation process of some of the study constructs the intervention was designed to influence. The steps involved in this process were: reverse coding of items, scale reliability check, and scale creation.

Reverse coding of items

The first step in the scale creation process was to identify which items needed to be reverse coded. Unfortunately, there was no indication in the original survey of which items needed to be reverse coded, so I had to use my subjective judgement to identify them.

This was a time consuming step because it entailed an item by item and then a scale by scale review. Luckily, once the items were identified, the reverse coding process was really fast because the [likert_reverse](#) function did the “heavy lifting”! Note that I use this function within a mutate function call.

In the code below I created a new dataframe called `elt_w1_clean_6_rev_code` where I included the new reverse coded variables.

```
elt_w1_clean_6_rev_code <- elt_w1_clean_6 %>%
  mutate(q25 = likert_reverse(q25, top = 4, bottom = 1),
        q73 = likert_reverse(q73, top = 4, bottom = 1),
        q110 = likert_reverse(q110, top = 6, bottom = 1),
        q113 = likert_reverse(q113, top = 6, bottom = 1),
        q114 = likert_reverse(q114, top = 6, bottom = 1),
        q115 = likert_reverse(q115, top = 6, bottom = 1),
        q116 = likert_reverse(q116, top = 6, bottom = 1),
        q123 = likert_reverse(q123, top = 4, bottom = 1),
        q124 = likert_reverse(q124, top = 4, bottom = 1))
```

Here I reverse coded all of the items in the survey that needed to be reverse coded, however, I did not use the first and last two variables,

q25, q123, and q124 in the scale creation process because they belong to scale constructs other than school climate, family-school relationships, and teacher self efficacy. The following are the items I reverse coded and used in the scale creation process described below:

Item q73: *Regardless of Latino students' abilities, it seems most Latino students are bound for a vocational career rather than for community college or university studies.*

Item q110: *When I really try, I can get through to most difficult students.*

Item q113: *If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.*

Item 114: *If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.*

Item q115: *If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the appropriate level of difficulty.*

Item q116: *I can get through to even the most difficult or unmotivated students.*

Reliability check

Once I completed the reverse coding step, I checked the reliability of the scales of the study constructs mentioned before. I used Chronbach's alpha as a measure of the internal consistency of the scale and I followed these guidelines to indicate the level of the scale's reliability:

.00 to .69 = Poor reliability

.70 to .79 = Fair reliability

.80 to .89 = Good reliability

.90 to .99 = Excellent/Strong reliability

In the following code chunks, first, I created a dataframe with only the specific items of interest. Then, I checked the internal consistency of this dataframe (i.e., the scale) using the [alpha](#) function. I followed this same procedure for all of the scales.

0.0.1 School climate

In the original survey that educators completed, the prompt for items q1 to q24 asked about the school's general climate. Despite my efforts to find the original measure that was used as a reference to create these items, I was not successful in finding it.

For what I gathered of the survey development process, different items from different measures were used, however, the survey developer(s) did not leave a precise record of what items belonged to what measure.

It is likely that several items from this scale were adapted from items in Part A: *General Climate Factors* of the public domain Charles F. Kettering Instrument (Fox et al., 1973) and *the Omnibus T-Scale* (Hoy & Tschannen-Moran, 2007). It is important to note that these two measures have a number of subscales within them, thus, it is possible that the scale named here as `climate_gen` also has subscales. This scale is a good candidate for further Exploratory and Confirmatory Factor Analyses (EFA and CFA).

```
climate_gen <- elt_w1_clean_6_rev_code %>%  
  select(q1:q24) %>%  
  data.frame()
```

`alpha(climate_gen)` # *alpha = .92 --> excellent consistency*

Following the guidelines stated above, the general school climate scale has an excellent internal consistency (.92). It is important to say, however, that because Cronbach's alpha increases as the number of items increases, this high score may be due to the high number of items included in the scale (24 items).

Items within this scale had response options that ranged from 1 - 4 (i.e., strongly disagree - strongly agree). Higher scores in this scale indicate better general school climate.

0.0.2 Diversity engagement

For this scale, I was not able to locate any measures of reference.

```
diver_engage <- elt_w1_clean_6_rev_code %>%  
  select(q36:q49) %>%  
  data.frame()
```

`alpha(diver_engage)` # *alpha = .92 --> excellent consistency*

The diversity engagement scale has 14 items and it has an excellent internal consistency (.92), however, items within the scale seemingly allude to very different topics, from professional development to connecting student with resources. This scale may also be a good candidate for EFA and CFA.

Items within this scale had response options that ranged from 1 - 4 (i.e., strongly disagree - strongly agree). Higher scores in this scale indicate more engagement of diverse students/families at the school.

0.0.3 Equity self-efficacy

For this scale, I was not able to locate any measures of reference.

```
equity_self_eff <- elt_w1_clean_6_rev_code %>%  
  select(q50:q55) %>%  
  data.frame()
```

alpha(equity_self_eff) # *alpha = .89 --> good consistency*

The equity self-efficacy scale has 5 items and it has a good reliability (.89).

Items within this scale had response options that ranged from 1 - 4 (i.e., strongly disagree - strongly agree). Higher scores in this scale indicate that educators were more self efficacious when promoting equity at their school.

0.0.4 Relationship with Latino families

For these scales, I was not able to locate any measures of reference.

In the original survey that educators completed, there were two sections about relationships with Latino families. The first section prompted educators to think about the school-Latino Families relationships and the second section prompted educators to think about their own relationship with Latino families.

0.0.4.1 School-Latino families relationship

In the teacher-Latino families section of the survey, I noticed that 3 items referred more to the school-Latino families relationship than to the teacher-Latino families relationship:

Item q70: *The school makes Latino parents aware of opportunities for leadership roles in the school such as the Parent-Teacher Association or other decision-making opportunities.*

Item q71: *Community resources and information are readily available and in Spanish at this school.*

Item q72: *This school reaches out to community organizations that focus on Latino families.*

I checked the reliability values of this scale with and without these 3 items.

```
scho_lat_fam_rel <- elt_w1_clean_6_rev_code %>%  
  select(q56:q64) %>%  
  data.frame() # alpha = --> .84 good consistency
```

alpha(scho_lat_fam_rel)

```
scho_lat_fam_rel_2 <- elt_w1_clean_6_rev_code %>%  
  select(q56:q64, q70:q72) %>%  
  data.frame()
```

alpha(scho_lat_fam_rel_2) # alpha = .88 --> good consistency

As shown in the code above, the scale with the 3 additional items has a slightly better internal consistency (.88) so I decided to keep those items in the scale.

The school-Latino families relationship scale has 12 items and it has a good reliability (.88).

Items within this scale had response options that ranged from 1 - 4 (i.e., strongly disagree - strongly agree). Higher scores in this scale indicate better school-Latino families relationships.

0.0.4.2 Teacher-Latino families relationship

I conducted a similar process for the teacher-Latino families relationship scale. First I checked the internal consistency of the scale as it was presented to the educators (i.e., as a section) and then I checked the internal consistency of the scale without the items I included in the school-Latino families relationship.

In the code below it can be seen that the internal consistency of the teach_lat_fam_rel scale was poor (.69). Applying the [alpha](#) function threw a message that indicated that items q73 and q75 were negatively correlated with the total scale and a possible solution was reverse coding them.

```
teach_lat_fam_rel <- elt_w1_clean_6_rev_code %>%  
  select(q65:q76) %>%  
  data.frame() # (q73 was reverse coded)
```

alpha(teach_lat_fam_rel) # alpha = .69 --> poor consistency, problematic items: q73 and q75

Item q73 was actually one of the items I reverse coded at the beginning of this section and I don't think it should be reversed back. Item q75 did not appear to need to be reverse coded:

Item q73: *Regardless of Latino students' abilities, it seems most Latino students are bound for a vocational career rather than for community college or university studies.*

Item q75: *In general, I see Latino parents supporting their children's education, such as going to the library or helping with homework.*

In my view, q73 does not hang well with the rest of the items in the scale as it does not probe the teacher-family relationship. What it does probe is a bias about Latino students.

For its part, item q75, does not appear to probe the teacher-family relationship either, but the teacher's perception of Latino parents' involvement in their children education at home. Even though item q76 was not flagged, it appears to probe something similar to q75, the teacher's perception of Latino parents' involvement in their children education at school. I checked how the scale fared taking out these 3 items.

```
teach_lat_fam_rel_2 <- elt_w1_clean_6_rev_code %>%
  select(q65:q72, q74) %>% # keeping q70:q72, leaving out q73, q75, q76
  data.frame()
```

```
alpha(teach_lat_fam_rel_2) # alpha = .76 --> fair consistency
```

As can be seen, taking out these items improved the Chronbach's alpha values of the teach_lat_fam_rel_2 scale (.76, fair consistency). Despite the improvement, I still wanted to check the internal consistency of the scale if I took out the items I consider better reflect the relationship with school.

```
teach_lat_fam_rel_3 <- elt_w1_clean_6_rev_code %>%
  select(q65:q69, q74) %>% # leaving out q70:q73, q75, q76
  data.frame()
```

```
alpha(teach_lat_fam_rel_3) # alpha = .84--> good consistency
```

In the teach_lat_fam_rel_3 scale I left out items q70 to q72 and the Chronbach's alpha score improved substantially, thus, I settled for this scale to measure the teacher-Latino family relationship.

The final teacher-latino families relationship scale has 6 items and it has a good reliability (.84).

Items within this scale had response options that ranged from 1 - 4 (i.e., strongly disagree - strongly agree). Higher scores in this scale indicate better teacher-Latino families relationships.

0.0.5 Teacher self efficacy

Items to measure teacher's self efficacy were adapted from the Hoy & Woolfolk (1993) version of the *Teacher Efficacy Scale* (TES; Gibson & Dembo, 1984). Hoy & Woolfolk (1993) proposed and tested two independent dimensions in the TES, general teaching self efficacy and personal teaching self efficacy. Here I checked the reliability of the complete scale and of the two independent dimensions.

It's important to note that the response options in this scale differed substantially from the previous scales. Response options ranged from 1 - 6 (i.e., strongly agree - strongly disagree). Also, Items q110, q113, q114, q115, q116 were reverse coded so that higher scores, either in the whole scale or the independent dimensions, indicate better teacher self efficacy.

```
teach_self_eff_all <- elt_w1_clean_6_rev_code %>%  
  select(q108:q117) %>%  
  data.frame() # q110, q113, q114, q115, q116 were reverse coded
```

```
alpha(teach_self_eff_all) # alpha = .74 --> fair consistency
```

Chronbach's alpha results indicate that the complete scale has a fair reliability (.74). In terms of the dimensions, the general teaching self efficacy scale has a fair reliability (.73) and the personal teaching self efficacy has a good reliability (.88).

```
teach_eff_gen <- elt_w1_clean_6_rev_code %>% # general teaching efficacy  
  dimension in original measure  
  select(q108, q109, q111, q112, q117) %>%  
  data.frame()
```

```
alpha(teach_eff_gen) # alpha = .73 --> fair consistency
```

```
teach_eff_per <- elt_w1_clean_6_rev_code %>% # personal teaching efficacy  
  dimension in original measure  
  select(q110, q113, q114, q115, q116) %>%  
  data.frame() # all items were reverse coded
```

```
alpha(teach_eff_per) # alpha = .88 --> good consistency
```

I decided to use the independent dimensions instead of the whole scale as they provide more nuanced information.

The general teaching self efficacy scale has 5 items. Higher scores indicate better general teaching self efficacy.

The personal teaching self efficacy scale has also 5 items. Higher scores indicate better personal teaching self efficacy.

Scale creation

The last step in this process was to create the scales with the best reliability values that were checked before.

In the code below I created a new data frame `elt_w1_scales` that only has id variables and the newly created scales. I created the new scales within a `mutate` call and I used the `rowwise` function to conduct row-wise operations.

```
elt_w1_scales <- elt_w1_clean_6_rev_code %>%
  rowwise() %>%
  mutate(climate_general = mean(c(q1, q2, q3, q4, q5, q6, q7, q8, q9, q10, q11, q12,
  q13, q14, q15, q16, q17, q18, q19, q20, q21, q22, q23, q24), na.rm = TRUE),
  school_engage_diversity = mean(c(q36, q37, q38, q39, q40, q41, q42, q43, q44,
  q45, q46, q47, q48, q49), na.rm = TRUE),
  equity_self_efficacy = mean(c(q50, q51, q52, q53, q54, q55), na.rm = TRUE),
  school_lat_fam_rel = mean(c(q56, q57, q58, q59, q60, q61, q62, q63, q64, q70,
  q71, q72), na.rm = TRUE),
  teacher_lat_fam_rel = mean(c(q65, q66, q67, q68, q69, q74), na.rm = TRUE),
  gen_teaching_efficacy = mean(c(q108, q109, q111, q112, q117), na.rm = TRUE),
  per_teaching_efficacy = mean(c(q110, q113, q114, q115, q116), na.rm = TRUE))
%>%
select(1, 3, 4, 169:175) # selecting only id variables and the new scales
```

Finally, the code below shows how I merged, (or *joined* in R lingo), the scales' dataframe `elt_w1_scales` and the complete cleaned dataset called `elt_w1_clean_5`. I am using `elt_w1_clean_5` because in this version of the dataset the `recode_missing_d()` function that strips out variable and value labels was not yet applied. This means too that the final cleaned dataset will not have reverse coded items. I am still working on figuring out if there is a way I can include them.

```
final_elt_w1 <- left_join(elt_w1_clean_5, elt_w1_scales, by = c("school_id",
  "response_id", "id"))
```

The final wave 1 educator dataset called now `final_elt_w1` is the dataset that will be exported to an SPSS file and the codebook that appears in the Appendix section in this report includes all of its variables and response options, with variable and value labels.

Average scores

In this final section, I include a table with the educator's baseline average scores in regards to the scales that I created above.

Scale	M	SD	Min	Max
General school climate	2.98	0.37	2.08	3.75
Diversity engagement	2.83	0.51	1.77	3.93
Equity self efficacy	2.90	0.58	2.00	4.00
School-Latino families rel.	2.60	0.47	1.67	3.64
Teacher-Latino families rel.	3.16	0.48	2.17	4.00
General teaching efficacy	4.58	1.03	2.40	6.00
Personal teaching efficacy	4.85	0.94	1.40	6.00

Recommendations

- Survey development software
 - Assign a unique identifier for each participant and a different unique identifier per family. Additional unique identifiers that survey development software include can be handy when dealing with duplicated ids.
 - When developing the id protocol for schools, make sure that both values and value labels coincide in the survey development software that is being used. Using the value labels button in SPSS or the view_df() function in R can help identify discrepancies.
 - When a survey is being developed, have several team members go over the response options in the survey development software to check for potential coding errors.
 - If the survey development software provides the option to indicate if responses are either single or multiple responses, make sure that the option coincides with the type of question. That is, if response options are mutually exclusive select the single answer option; if response options are *NOT* mutually exclusive, select the multiple answer option.
 - Avoid including survey instructions in the variable labels so that they are not too long.
- Questionnaire development
 - When a questionnaire is being developed for the first time, leave a precise record of where items are taken from. It is a good practice to include the whole citation of the measure that served as a reference and preferably download and save the measure because internet links can get broken or reused over time.
 - Try to use scales as they were designed. Cherry-picking items from different measures can lead to difficulties at identifying what is the construct being measured.

- Always indicate what items need to be reverse coded. A simple asterisk sign by the item may save lots of time at the backend.
- With items originally created for a project, it is a good idea to at least conduct an EFA to identify if the scale may have subscales. Chronbach's alpha values on scales that have a high number of items can be deceiving as the number of items increases Chronbach's alpha values increase too.

Appendix

Data frame: final_elt_w1

<i>ID</i>	<i>Name</i>	<i>Label</i>	<i>Values</i>	<i>Value Labels</i>
1	school_id		1 2 3 4 5 6	cascade prairie_mountain kelly ata briggs agnes_stewart
2	condition		1 2	control intervention
3	response_id	Response ID		<output omitted>
4	id			<output omitted>
5	participant_role	Your role at this school: - Selected Choice	1 2 3 4 5 6	Administrator Teacher Counselor Aducatonal Assistant Other classified staff (specify) Other certified staff (specify)
6	participant_role_5_text	Your role at this school: - Other classified staff (specify) - Text		<output omitted>
7	participant_role_6_text	Your role at this school: - Other certified staff (specify) - Text		<output omitted>
8	wave			<i>range: 1-1</i>
9	q1	There are 135 questions on this survey. It is designed to be answered by all members of the school staff. As a result		

you may not always have experience with the situations we refer to.
You may feel you don't have enough contact with a certain situation to answer a certain question,
but using your best judgement, please choose the answer that best reflects your opinion and experience. Because this survey is completely voluntary, we have provided a "no response" option on all statements however, we hope that you choose to answer all questions as thoughtfully as possible using the agreement scale provided.

School Climate

This beginning section asks about your opinion of the general climate of the school.

Using the scale provided, please indicate how much you agree or disagree with each statement.

The asterisks mean the following:

• =
Parents or Guardians

** = Administrators,
teachers and all other staff

I enjoy working at this school.

10

q2 Teachers and parents*

listen to each other.	1	Strongly Disagree	
	2	Disagree	
	3	Agree	
	4	Strongly Agree	
	99	No Response	
11	q3	Students get along well with each other.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
12	q4	I am a valued member of this school.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
13	q5	There is a trusting relationship between teachers and students.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
14	q6	There is a trusting relationship between teachers and parents.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
15	q7	There is a trusting relationship between teachers.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
16	q8	There is a trusting relationship between administrators and all other school staff**.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
17	q9	Students in this school are enthusiastic learners.	1 2 3

4 Strongly
99 Disagree
 Disagree
 Agree
 Strongly Agree
 No Response

18	q10	Teachers are proud to be teachers.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
19	q11	School staff is respectful to the whole school community.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
20	q12	Parents from diverse groups are involved in the school.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
21	q13	Administration and other school staff collaborate well.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
22	q14	The school is welcoming to all its members.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
23	q15	This schoolâ€¢ creates opportunities for community building.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No Response
24	q16	This schoolâ€¢	

		â€œcreates a sense of belonging for all.	1	Strongly Disagree	
			2	Disagree	
			3	Agree	
			4	Strongly Agree	
			99	No Response	
25	q17	This schoolâ€œ actively engages parents to take part in school-related activities and functions.	1	Strongly	
			2	Disagree	
			3	Disagree	
			4	Agree	
			99	Strongly Agree	
				No Response	
26	q18	This schoolâ€œ clearly communicates its expectations to students.	1	Strongly	
			2	Disagree	
			3	Disagree	
			4	Agree	
			99	Strongly Agree	
				No Response	
27	q19	This schoolâ€œ clearly communicates its expectations to parents.	1	Strongly	
			2	Disagree	
			3	Disagree	
			4	Agree	
			99	Strongly Agree	
				No Response	
28	q20	This schoolâ€œ is a safe and caring environment for all.	1	Strongly	
			2	Disagree	
			3	Disagree	
			4	Agree	
			99	Strongly Agree	
				No Response	
29	q21	This schoolâ€œ views parents as important to the schoolâ€™s success.	1	Strongly	
			2	Disagree	
			3	Disagree	
			4	Agree	
			99	Strongly Agree	
				No Response	
30	q22				

		This schoolâ€¹ has parents from diverse cultures involved in school functions and activities.	1 2 3 4 99	Strongly Disagree Disagree Agree Strongly Agree No Response
31	q23	This schoolâ€¹ has a lot of parent participation in school functions and activities.	1 2 3 4 99	Strongly Disagree Disagree Agree Strongly Agree No Response
32	q24	This schoolâ€¹ creates positive relationships with all types of families, even if there are language and cultural/ethnic differences.	1 2 3 4 99	Strongly Disagree Disagree Agree Strongly Agree No Response
33	q25	This section has to do with how your school and the school community deal with conflict and challenging behaviors. Please indicate how much you agree or disagree with each statement by using the scale provided. At this schoolâ€¹	1 2 3 4 99	Strongly Disagree Disagree Agree Strongly Agree No Response
34	q26	When a student causes harm, the schoolâ€™s main response is to punish the student. At this schoolâ€¹	1 2 3 4 99	Strongly Disagree Disagree Agree Strongly Agree No Response
		When there is conflict, school staff considers the diverse background and differing points of view of the people involved.		

35	q27	At this schoolâ€¡ students and staff communicate with each other respectfully.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
36	q28	At this schoolâ€¡ parents contribute to solutions for their studentâ€™s school-based behavioral problems.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
37	q29	At this schoolâ€¡ when there is conflict, we focus on the needs and interests of all parties involved.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
38	q30	At this schoolâ€¡ we support direct and constructive dialogue in a safe environment.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
39	q31	At this schoolâ€¡ students are allowed to make amends after causing harm.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
40	q32	At this schoolâ€¡ when there is conflict, it is handled quickly.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
41	q33	At this schoolâ€¡ when there is conflict, we focus on repairing the harm and restoring relationships.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
42	q34	At this schoolâ€¡ we learn from conflict and donâ€™t ignore it.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
43	q35	At this schoolâ€¡		

			1	Strongly Disagree	
			2	Disagree	
			3	Agree	
			4	Strongly Agree	
			99	No Response	
44	q36	This section has to do with how your school and the school community engage with the different cultural backgrounds present in your school. Please indicate how much you agree or disagree with each statement by using the scale provided.	1	Strongly	
			2	Disagree	
			3	Disagree	
			4	Agree	
			88	Strongly	
			99	Agree	
			N/A		
			No		
			Response		
45	q37	As staff at this schoolâ€¢ we are committed to our own professional development and ongoing education about how our cultural backgrounds influence our work.	1	Strongly	
			2	Disagree	
			3	Disagree	
			4	Agree	
			88	Strongly	
			99	Agree	
			N/A		
			No		
			Response		
46	q38	As staff at this schoolâ€¢ we collaborate and implement best practices for teaching students from diverse cultural and language backgrounds.	1	Strongly	
			2	Disagree	
			3	Disagree	
			4	Agree	
			99	Strongly	
			Agree		
			N/A		
			No		
			Response		
47	q39	As staff at this schoolâ€¢			

			1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			88	N/A
			99	No Response
48	q40	As staff at this schoolâ€!	1	Strongly
			2	Disagree
		â€!the teachers and	3	Disagree
		administrators examine policies	4	Agree
		and practices to	99	Strongly
		make sure all students are treated		Agree
		fairly.		No
				Response
49	q41	As staff at this schoolâ€!	1	Strongly
			2	Disagree
			3	Disagree
		â€!we are comfortable	4	Agree
		advocating for student equity with	99	Strongly
		other staff		Agree
		members.		No
				Response
50	q42	As staff at this schoolâ€!	1	Strongly
			2	Disagree
			3	Disagree
		â€!we ensure every student	4	Agree
		has the resources needed to	99	Strongly
		succeed (e.g. rents or		Agree
		borrow musical instruments,		No
		ensures that computer		Response
		labs are open for use, provides		
		resources and		
		materials available in languages		
		other than		
		English.)		
51	q43	As staff at this schoolâ€!	1	Strongly
			2	Disagree
			3	Disagree
		â€!we make special efforts	4	Agree
		to engage with families who have	99	Strongly
		low participation		Agree
		rates in school.		No
				Response
52	q44	As staff at this schoolâ€!		

		â€œwe provide a Family Resource Center which allows for safe and welcoming interactions between school staff and family members.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
53	q45	As staff at this schoolâ€œ!	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
		â€œwe share common goals for students no matter their background and culture.	99	Strongly Agree
				No Response
54	q46	As staff at this schoolâ€œ!	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
		â€œwe see ourselves as a supportive community that includes all our families.	99	Strongly Agree
				No Response
55	q47	As staff at this schoolâ€œ!	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
		â€œwe are comfortable talking about equity issues in deep ways.	99	Strongly Agree
				No Response
56	q48	As staff at this schoolâ€œ!	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
		â€œwe are able to talk about our own personal cultural identities and experiences.	99	Strongly Agree
				No Response
57	q49	As staff at this schoolâ€œ!	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
		â€œwe donâ€™t sweep issues of race, equity, or culture under the rug.	99	Strongly Agree
				No Response

58	q50	This section has to do with having conversations about equity with your colleagues and other school staff. Please indicate how much you agree or disagree with each statement by using the scale provided.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
59	q51	Even if others in my school do not share my commitment to equity issues, I know how to promote equity work.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
60	q52	Even if others in my school do not share my commitment to equity issues, I know how to have difficult conversations with colleagues about issues such as implicit bias, discrimination, disproportionality (e.g., disciplinary outcomes.)	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
61	q53	At my school, I feel confident that I could facilitate a conversation with my colleagues about difficult topics such as implicit bias, discrimination, or disproportionality.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
62	q54	At my school, I feel confident that ...if I saw a colleague acting in a way that I felt was inequitable or unfair, I would know how to reach out to that person in order to have an open and honest conversation about the incident.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
63	q55	At my school, I feel confident that		

			1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
â€œif I saw another staff member acting in a way I felt was inequitable or unfair, I would feel comfortable disrupting the behavior in a gentle, positive way.				
64	q56	This section focuses specifically on the relationship between the school and its Latino families. Please indicate how much you agree or disagree with each statement by using the scale provided.	1	Strongly Disagree
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree
				No Response
At this schoolâ€œ manuals and other materials are readily available in Spanish				
65	q57	At this schoolâ€œ, information about homework, school activities, and opportunities for family involvement is available in Spanish.	1	Strongly Disagree
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree
				No Response
66	q58	At this schoolâ€œ, we have an open and accepting attitude toward Latino families.	1	Strongly Disagree
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree
				No Response
67	q59	At this schoolâ€œ, we have a welcoming environment for Latino cultures and languages.	1	Strongly Disagree
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree

No
Response

68	q60	At this schoolâ€¦ teachers, administrators and school staff actively engage Latino families in school activities and functions.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
69	q61	At this schoolâ€¦ a bilingual (Spanish/English) staff member or translator is readily available when needed or requested.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
70	q62	At this schoolâ€¦ we hold a number of multi-cultural events and social nights in Spanish or bilingually.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
71	q63	At this schoolâ€¦ we actively seek the participation of our Latino families in all aspects of the school.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
72	q64	At this schoolâ€¦ we offer workshops in Spanish on topics such as parent leadership in the school, how to understand the curriculum, and ways to help children succeed academically.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree No Response
73	q65	This section has to do with your relationship with Latino families. Please indicate how much you agree or disagree with each statement by using the scale provided.		

In general, I feel I can talk with and am heard by Latino parents.	1	Strongly Disagree		
	2	Disagree		
	3	Agree		
	4	Strongly Agree		
	88	N/A		
	99	No Response		
74	q66	If I had a problem with a Latino child, I would feel comfortable talking to his/her parent about the situation.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree
				No Response
75	q67	If I am in contact with a Latino family, I keep in mind that Latino families come from a variety of different cultures and linguistic backgrounds.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree
				No Response
76	q68	When I communicate with Latino families, I keep in mind that many Latino parents may not understand how to navigate the educational system in this country.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree
				No response
77	q69	I reach out to Latino families so they feel like part of the school community.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree
				No Response
78	q70	The school makes Latino parents aware of opportunities for leadership roles in the school such as the Parent-Teacher Association or other decision-making opportunities.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree
				No Response

79	q71	Community resources and information are readily available and in Spanish at this school.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
80	q72	This school reaches out to community organizations that focus on Latino families.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
81	q73	Regardless of Latino students' abilities, it seems most Latino students are bound for a vocational career rather than for community college or university studies.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
82	q74	In general, Latino parents ask questions or make suggestions to me about their child.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			88	N/A
			99	No Response
83	q75	In general, I see Latino parents supporting their children's education, such as going to the library or helping with homework.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
84	q76	In general, Latino parents are involved in their children's lives at school.	1	Strongly Disagree
			2	Disagree
			3	Agree
			4	Strongly Agree
			99	No Response
85	q77	The next section is about the classroom environment. You do not necessarily have to be a teacher or teaching assistant, we are looking for your opinion about how you think the classroom environment is at your school. If you feel you have enough knowledge of how the classroom operates, even if you are not a teacher or teaching assistant, please answer the next section by answering 'yes', if not, answer 'no' below.	1	Yes
			2	No

86	q78	For teachers, teacher assistants, and staff who interact in the classroom environment.	1 Strongly Disagree 2 Disagree 3 Agree 4 Strongly Agree
<p>The following questions are about interactions between you and your students in your classroom. Please answer how much you agree or disagree with the following in your classroom(s) using the scale provided.</p> <p>In the classroomâ€¢ we honor individual perspectives.</p>			
87	q79	In the classroomâ€¢ we have class discussions that celebrate the rich cultures and backgrounds present at our school and in our classroom.	1 Strongly Disagree 2 Disagree 3 Agree 4 Strongly Agree
88	q80	In the classroomâ€¢ we embrace all cultural and family differences as assets to our school.	1 Strongly Disagree 2 Disagree 3 Agree 4 Strongly Agree
89	q81	In the classroomâ€¢ we role model behaviors of inclusion.	1 Strongly Disagree 2 Disagree 3 Agree 4 Strongly Agree
90	q82	In the classroomâ€¢ we engage in relationship-building activities in the classroom.	1 Strongly Disagree 2 Disagree 3 Agree 4 Strongly Agree
91	q83	In the classroomâ€¢ we talk about the importance of seeing from anotherâ€™s point of view as a way to challenge personal assumptions, implicit biases, and stereotypes.	1 Strongly Disagree 2 Disagree 3 Agree 4 Strongly Agree
92	q84	In the classroomâ€¢ we use examples from the different cultural experiences in the class to enrich our discussions.	1 Strongly Disagree 2 Disagree 3 Agree 4 Strongly Agree

93	q85	In the classroomâ€ â€ we talk about how stereotypes and assumptions can cause injustice.	1 2 3 4	Strongly Disagree Disagree Disagree Agree Strongly Agree
94	q86	In the classroomâ€ â€ we reflect on how our own personal beliefs, backgrounds, and assumptions may affect how we interact with others.	1 2 3 4	Strongly Disagree Disagree Disagree Agree Strongly Agree
95	q87	In the classroomâ€ â€ we discuss how different beliefs, assumptions and stereotypes can create an uneven playing field for minorities and other under-represented groups.	1 2 3 4	Strongly Disagree Disagree Disagree Agree Strongly Agree
96	q88	In the classroomâ€ â€ we discuss how stereotypes and different beliefs that exist in our society can lead to achievement gaps.	1 2 3 4	Strongly Disagree Disagree Disagree Agree Strongly Agree
97	q89	In the classroomâ€ â€ we discuss the importance of giving back to the community through volunteering or other community outreach projects.	1 2 3 4	Strongly Disagree Disagree Disagree Agree Strongly Agree
98	q90	In the classroomâ€ â€ we practice active listening.	1 2 3 4 99	Strongly Disagree Disagree Disagree Agree Strongly Agree No response
99	q91	In the classroomâ€ â€ we create an environment that all of us enjoy being part of.	1 2 3 4 99	Strongly Disagree Disagree Disagree Agree Strongly Agree No response
100	q92	In the classroomâ€ â€ we work together to resolve most conflicts that arise.	1 2 3 4 99	Strongly Disagree Disagree Disagree Agree Strongly Agree No response
101	q93	In the classroomâ€ â€ we are allies against social injustices (i.e., racism, sexism, classism, etc.)	1 2	

3 Strongly
4 Disagree
99 Disagree
 Agree
 Strongly
 Agree
 No response

102	q94	In the classroomâ€¢ we expect each other to perform to our highest ability.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No response
103	q95	In the classroomâ€¢ our classroom celebrates diversity (through books, posters on the wall, etc.)	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No response
104	q96	In the classroomâ€¢ students are very aware of expectations of behavior.	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No response
105	q97	In the classroomâ€¢ I reinforce and encourage desired behavior of my students through positive recognition (for example, praise or compliments).	1 Strongly 2 Disagree 3 Disagree 4 Agree 99 Strongly Agree No response
106	q98	Several of the following statements assume a role of interacting with students in the classroom, however you still may have contact with students outside the classroom, if certain situations do not apply to you please use the N/A option,	

<p>otherwise use the scale provided for your answer. During this school year, I haveâ€!</p>	<p>1 2 3 4</p>	<p>Strongly Disagree Disagree Agree Strongly Agree</p>	
<p>greeted the English Language Learners in my classroom (or students at the school in general) with a word or phrase from their heritage language.</p>	107	<p>q99 During this school year, I haveâ€! â€! looked up information about the cultures of my students, (or the students at this school in general).</p>	<p>1 2 3 4</p> <p>Strongly Disagree Disagree Agree Strongly Agree</p>
108	q100	<p>During this school year, I haveâ€! â€! developed personal relationships with my students.</p>	<p>1 2 3 4</p> <p>Strongly Disagree Disagree Agree Strongly Agree</p>
109	q101	<p>During this school year, I haveâ€! â€! helped students develop positive relationships with their classmates.</p>	<p>1 2 3 4</p> <p>Strongly Disagree Disagree Agree Strongly Agree</p>
110	q102	<p>During this school year, I haveâ€! â€! determined whether my students like to work in groups or individually.</p>	<p>1 2 3 4 99</p> <p>Strongly Disagree Disagree Agree Strongly Agree No response</p>
111	q103	<p>During this school year, I haveâ€! â€! taken steps to learn about the difference between equity and equality.</p>	<p>1 2 3 4 99</p> <p>Strongly Disagree Disagree Agree Strongly Agree</p>

No
response

112	q104	During this school year, I haveâ€œâ€œ examined my own position of power and privilege.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			99	Strongly Agree Agree No response
113	q105	During this school year, I haveâ€œâ€œ taken a class or a professional development course on issues such as equity or cultural responsiveness.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			88	Strongly Agree
			99	N/A No response
114	q106	During this school year, I haveâ€œâ€œ concentrated on the learning style of my students in order to create multiple pathways for students to be successful.	1	Strongly
			2	Disagree
			3	Disagree
			4	Agree
			88	Strongly Agree
			99	N/A No response
115	q107	Are you a teacher, Teacher's Assistant (TA), or any other form of school staff that aids in hands on activities in the classroom?	1	Yes
			2	No
116	q108	<p>Teacher Efficacy Scale (Short Form)</p> <p>*In Hoy, W.K. & Woolfolk, A.E. (1993). Teachers' sense of efficacy and the organizational health of schools.</p> <p>The Elementary School Journal 93, 356-372.</p> <p>A number of statements about organizations, people, and teaching are presented below. The purpose is to gather information regarding the attitudes of</p>		

educators concerning these statements.

Please indicate how much you agree or disagree with each statement by using the scale provided.

1	Strongly Agree
2	Moderately Agree
3	Agree slightly more than disagree
4	Disagree slightly more than agree
5	Moderately Disagree
6	Strongly Disagree
99	No response

The amount a student can learn is primarily related to family background.

117	q109	If students aren't disciplined at home, they aren't likely to accept any discipline.	1	Strongly Agree
			2	Moderately
			3	Agree
			4	Agree slightly more than disagree
			5	Disagree
			6	Moderately Disagree
			99	Strongly Disagree
				No response
118	q110	When I really try, I can get through to most difficult students.	1	Strongly Agree
			2	Moderately
			3	Agree
			4	Agree slightly more than disagree
			5	Disagree
			6	Moderately Disagree
			99	Strongly Disagree
				No response
119	q111	A teacher is very limited in what he/she can achieve because a student's home environment is a		

large influence on his/her achievement.		1	Strongly Agree	
		2	Moderately Agree	
		3	Agree slightly more than disagree	
		4	Disagree slightly more than agree	
		5	Moderately Disagree	
		6	Strongly Disagree	
		99	No response	
120	q112	If parents would do more for their children, I could do more.	1	Strongly Agree
			2	Moderately Agree
			3	Agree slightly more than disagree
			4	Disagree slightly more than agree
			5	Moderately Disagree
			6	Strongly Disagree
			99	No response
121	q113	If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.	1	Strongly Agree
			2	Moderately Agree
			3	Agree slightly more than disagree
			4	Disagree slightly more than agree
			5	Moderately Disagree
			6	Strongly Disagree
			99	No response
122	q114	If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.	1	Strongly Agree
			2	Moderately Agree
			3	Agree slightly more than disagree
			4	Disagree slightly more than agree
			5	Moderately Disagree
			6	Strongly Disagree
			99	No response
123	q115	If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at		

the appropriate level of difficulty.	1 2 3 4 5 6 99	Strongly Agree Moderately Agree Agree slightly more than disagree Disagree slightly more than agree Moderately Disagree Strongly Disagree No response
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124	q116	I can get through to even the most difficult or unmotivated students.	1 2 3 4 5 6 99	Strongly Agree Moderately Agree Agree slightly more than disagree Disagree slightly more than agree Moderately Disagree Strongly Disagree No response
125	q117	A teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.	1 2 3 4 5 6 99	Strongly Agree Moderately Agree Agree slightly more than disagree Disagree slightly more than agree Moderately Disagree Strongly Disagree No response

126	q118	<p>This section has to do with the environment at your school since the presidential election of 2016. "Reprinted with permission of Teaching Tolerance, a project of the Southern Poverty Law Center. www.tolerance.org"</p> <p>Using the scale provided please answer how much you agree or disagree with the following statements.</p> <p>Since the presidential election of 2016, at my school!</p>
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	I have witnessed an increase in anti-immigrant sentiment.	1 2 3 4 99	Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree No response
127	q119 Since the presidential election of 2016, at my schoolâ€¹ Students have expressed an increased unease or fear about what may happen to them or their families.	1 2 3 4 99	Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree No response
128	q120 Since the presidential election of 2016, at my schoolâ€¹ I have noticed an increase in derogatory language or slurs about students of color.	1 2 3 4 99	Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree No response
129	q121 Since the presidential election of 2016, at my schoolâ€¹ Students are targeting other students based on who they supported in the election.	1 2 3 4 99	Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree No response
130	q122 Since the presidential election of 2016, at my schoolâ€¹ Teachers or administrators are being harassed for standing up for children.	1 2 3 4 99	Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree No response
131	q123 Since the presidential		

election of 2016, at my schoolâ€!	1 2 3 4 99	Strongly Disagree Somewhat Disagree Somewhat Agree Strongly Agree No response		
The administration is being responsive to incidents that occur due to the post-election climate.				
132	q124	Since the presidential election of 2016, at my schoolâ€!	1 2 3 4 99	Strongly Disagree Disagree Somewhat Agree Disagree Somewhat Agree Strongly Agree No response
		Teachers and administrators have put in place a support system specifically to help the school deal with the post-election climate.		
133	q125	Since the presidential election of 2016, if specific incidents of election-related bigotry or harassment have occurred in your school, please describe them in the space below. (In about 400 words or less)		<output omitted>
134	q126	Since the presidential election of 2016, using the space below, please describe any examples of hope or inclusion that have occurred in your school following the election. (In about 400 words or less)		<output omitted>
135	age			range: -99-62
136	birth_country	In which country were you born? (MARK one) - Selected Choice	1 2 99	United States Another country (specify):

No response				
	137	another_birth_country_text	In which country were you born? (MARK one) - Another country (specify): - Text	<output omitted>
	138	age_first_moved_us	If you were born outside the U.S, how old were you when you first moved to the US? - Age: - Text	
	139	white	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice White	1 White
	140	hispanic_latino_spanish	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice Hispanic, Latino, or Spanish Origin	1 Hispanic, Latino, or Spanish Origin
	141	black_african_american	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice Black or African American	1 Black or African American
	142	asian	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice Asian	1 Asian

143	american_indian_alaska_native	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice American Indian, Alaska Native	1	American Indian, Alaska Native
144	indigenous_americas	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice Indigenous from Mexico, Central America or South America (specify):	1	Indigenous from Mexico, Central America or South America (specify):
145	middle_eastern_north_african	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice Middle Eastern or North African	1	Middle Eastern or North African
146	native_hawaiian_pacific_islander	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice Native Hawaiian or other Pacific Islander	1	Native Hawaiian or other Pacific Islander
147	race_ethnicity_other	Please describe your race/ethnicity: (MARK those that apply) - Selected Choice Other: (specify)	1	Other: (specify)
148	race_ethnicity_no_response	Please describe your race/ethnicity:		

	(MARK those that apply) - Selected Choice no response	1	no response	
149	indigenous_americas_text	Please describe your race/ethnicity: (MARK those that apply) - Indigenous from Mexico, Central America or South America (specify): - Text	<output omitted>	
150	race_ethnicity_other_text	Please describe your race/ethnicity: (MARK those that apply) - Other: (specify) - Text	<output omitted>	
151	gender_id	Gender identity: - Selected Choice	1 2 3	Male Female Other (specify)
152	years_in_position	How long have you been in your current career position (regardless of school/site)?	1 2 3 4 99	Less than 1 year 1 to 5 years 5 to 10 years 10 years or more no response
153	years_in_school	How many years have you worked at your current school?	1 2 3 4 99	Less than 1 year 1 to 5 years 5 to 10 years 10 years or more No response
154	equity_leadership	My continuing education coursework has covered the following topics (MARK all that apply): - Selected Choice Equity leadershipâ€	1	Equity leadershipâ€

155	cultural_responsiveness	My continuing education coursework has covered the following topics (MARK all that apply): - Selected Choice Cultural responsivenessâ€â€	1	Cultural responsivenessâ€â€
156	restorative_practices	My continuing education coursework has covered the following topics (MARK all that apply): - Selected Choice Restorative practicesâ€â€	1	Restorative practicesâ€â€
157	diversity	My continuing education coursework has covered the following topics (MARK all that apply): - Selected Choice Diversityâ€	1	Diversityâ€
158	ell	My continuing education coursework has covered the following topics (MARK all that apply): - Selected Choice English language learners	1	English language learners
159	cont_ed_other	My continuing education coursework has covered the following topics (MARK all that apply): - Selected Choice Other, explain	1	Other, explain
160	cont_ed_na	My continuing education coursework has covered the following topics (MARK all that apply): - Selected Choice N/A, I am not required to take continuing education courses	1	N/A, I am not required to take continuing education courses
161	cont_ed_no_response	My continuing education coursework has covered the following topics (MARK		

		all that apply): 1 - Selected Choice No response	No response	
162	cont_ed_other_text	My continuing education coursework has covered the following topics (MARK all that apply): - Other, explain - Text	<output omitted>	
163	english_comfort		1 not at all 2 comfortable 3 somewhat 4 comfortable 99 comfortable very comfortable no response	
164	spanish_comfort		1 not at all 2 comfortable 3 somewhat 4 comfortable 99 comfortable very comfortable no response	
165	other1_lang	How comfortable are you speaking the following languages? - Other (specify, or mark NA if it doesn't apply) - Text	<output omitted>	
166	other1_lang_comfort		1 not at all 2 comfortable 3 somewhat 4 comfortable 99 comfortable very comfortable no response	
167	other2_lang	How comfortable are you speaking the following languages? - Other (specify, or mark NA if it doesn't apply) - Text	<output omitted>	
168	other2_lang_comfort		1	

2 not at all comfortable
3 somewhat comfortable
4 comfortable
99 very comfortable
no response

169	climate_general	<i>range: 2.1-3.8</i>
170	school_engage_diversity	<i>range: 1.8-3.9</i>
171	equity_self_efficacy	<i>range: 2.0-4.0</i>
172	school_lat_fam_rel	<i>range: 1.7-3.6</i>
173	teacher_lat_fam_rel	<i>range: 2.2-4.0</i>
174	gen_teaching_efficacy	<i>range: 2.4-6.0</i>
175	per_teaching_efficacy	<i>range: 1.4-6.0</i>

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1. In this study, participants were allowed to select as many races or ethnicities they felt identified with, thus, percent of total adds up to more than 100% ↵

