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Mereceemos Saber/ We Deserve to Know

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Safe Ag Safe Schools

May 17, 2019

Abstract

Safe Ag Safe Schools, a coalition of 50-plus organizations works with the community to reduce pesticide exposure in Monterey County. Although pesticides are used to kill and repel pests, pesticides put human health at risk. Despite the efforts addressing pesticides issues, Spanish speaking individuals are unaware of what those issues are. Mereceemos Saber/ We Deserve to Know is an educational intervention aimed to increase Spanish speaking individuals' knowledge and awareness about pesticide issues. This project included an educational intervention, mapping of expected pesticide applications near Greenfield schools, and a presentation conducted at the Community Forum on Pesticides in Greenfield City Council Chambers. Thirty-five participants observed three maps about 2018-2019 expected pesticide applications near the schools. Qualitative interviews indicated that participants found the maps useful to understand pesticide applications near the schools. Overall, more maps are needed to illustrate pesticide applications near Monterey County schools.

Keywords: Pesticides, exposure, knowledge, awareness, maps

Mereceemos Saber/ We Deserve to Know

I. Agency and Communities Served

Safe Ag Safe Schools is a coalition of over 50 organizations and individuals working together to reduce the threat of pesticide exposure in Monterey County (Safe Ag Safe Schools, 2012). “Safe Ag Safe Schools is focused on increasing grassroots pressure on policy-makers to reduce hazardous pesticide use in and around schools and residential communities” (Safe Ag Safe Schools, 2012). The major activities Safe Ag Safe Schools does consist of community organizing, participating in tabling events, meeting with state and local policymakers, write letters to the editor, and send petitions to state and local levels of government.

II. Problem Description

The macro level problem consists of pesticides putting human health at risk while the micro level problem consists of too many Greenfield CA, residents are unaware of expected pesticide applications near the schools. Therefore, the barrier Mereceemos Saber/ We Deserve to Know addressed was providing maps to visualize expected pesticide applications. Mereceemos Saber/ We Deserve to Know provided community members information in English and Spanish about expected pesticide applications near Greenfield schools, so community members understand children's' vulnerability to pesticide drift and exposure. To look at the problem model, refer to Appendix A.

Primary Causes

The macro-level causes include policies and the agricultural industry. In 2018, California enacted Pesticide Use Near School sites regulations. The first regulation prohibits growers from applying pesticides near schools and licensed daycares from 6:00 am to 6:00 pm Monday-Friday (CDPR, 2016). The second regulation requires growers who have fields within a ¼ mile of

schools and daycares to provide an annual list of the pesticides expected to be applied near those facilities to the schools' principals and daycare administrators (CDPR, 2016). However, these regulations are not enacted in Greenfield because "no ordinance or regulation of local government may prohibit or in any way attempt to regulate any matter relating to the use of pesticides..." (California Food & Agricultural Code, 1967). Furthermore, the agricultural industry contributes to this problem because growers refuse to move from traditional agricultural practices to sustainable agricultural practices as well as failure to protect farm workers from high levels of toxic pesticides (Farmworker Justice, 2013).

On the other hand, the micro level causes include farmworkers' limited training and knowledge about pesticide drift and exposure, and inappropriate description of pesticide labels. Although employers annually provide training to farmworkers with the usage of a translator, training is insufficient (Fults, 2015). Moreover, residents may not know when they are exposed to pesticides. During a meeting, Victor stated, "While playing in school, I got an asthma attack and woke up in the emergency room. I never imagined been exposed to pesticides" (V. Torres, personal communication, October 19, 2018). Finally, pesticide labels are only printed in English which puts pesticide applicators at risk of injury or illness because they are unable to read the pesticide label (Farmworker Justice, 2013).

Consequences

Some of the consequences at the macro level include environmental contamination and disease. The environment is contaminated when pesticides move through the air, water, sunlight, and through the exposure of other chemicals and microbial activity (National Pesticide Information Center, 2007). Therefore, depending on the pesticide type, the environment, weather conditions, and methods of application; some pesticides can take longer than others to break

down and persist in the environment for less than 30 days while others stay in the environment for 100 days. (Kerle et al., 2007). As pesticides persist in the environment, disease arises affecting human health. Some acute health conditions are irritation of the nose and throat, burning, stinging, and itchy skin, rashes and blisters, nausea, dizziness, and diarrhea (Californians for Pesticide Reform, 2017). Chronic health conditions include cancer and other tumors, brain and nervous system damage, congenital disabilities, reproductive problems, and damage to the liver, kidneys, lungs and other body organs (Californians for Pesticide Reform, 2017).

Micro-level consequences include the take-home pathway pesticide exposure, not wearing protective clothing, acute and chronic health conditions, and underreported pesticide incidents. The take-home pathway pesticide exposure occurs when pesticides residues found in clothes, vehicles, and skin are brought into the home putting children at risk of pesticide exposure (Strong et.al, 2009). Furthermore, failure to wear waterproof gloves, coveralls, and boots put farm workers at risk of pesticide exposure (Damals and Koutroubas, 2016). Moreover, pesticides endanger children's health. The research discovered that young children exposed to pesticides are associated with respiratory problems and asthma (Raanan et, al., 2015). Further research stated that mothers exposed to organophosphates increased the probabilities of having a child with attention problems (Marks, et. al., 2010). Lastly, mothers exposed to organophosphates have a 60% probability of having a child with autism (Shelton, et al., 2014). Unfortunately, pesticide incidents are underreported due to the lack of an accurate reporting system, and medical providers not reporting pesticide incidents to the county and state (Farmworker Justice, 2013). Other factors include language barriers, lack of access to medical care and information

about hazards, awareness of poisoning symptoms, and fear of losing jobs (Farmworker Justice, 2013).

III. Project Description and Implementation Process

Mereceemos Saber/We Deserve to Know was an educational intervention for Greenfield, CA residents. The intervention contained a curriculum and a presentation in English and another presentation in Spanish. The intervention's goal was to increase Greenfield residents' awareness and knowledge about pesticides issues. Though the curriculum was not implemented, three maps illustrating expected pesticide applications near Greenfield's Cesar Chavez Elementary School, Vista Verde Middle, and Greenfield High were implemented. One of the intervention's objectives consisted of interviewing ten community members about the effectiveness of three maps illustrating expected pesticide applications near Greenfield schools. To see the process of the project, please refer to the scope of work on Appendix B.

Mereceemos Saber/ We Deserve to Know implementation occurred on February 15, 2019. The intervention implementation consisted of a fourteen-minute bilingual presentation in English and Spanish at Greenfield City Council Chambers. A total of 35 participants attended the forum and observed the three maps. Participants' role consisted of actively listening and asking questions throughout the presentation. Safe Ag Safe Schools mentor and Californians for Pesticide Reform Co-director provided refreshments. Prior to the intervention's implementation, the following activities were completed. First, the intern learned Greenfield's population demographics and reviewed best practice curriculums that addressed the pesticides issue. Second, the intern analyzed and created visuals for the expected pesticides applications near Greenfield schools. Third, the intern designed a bilingual questionnaire to assess the

presentations' success. The major challenge encountered in this project due to time constraints consisted of only presenting the maps rather than presenting the entire intervention.

Project Justification

One of the primary issues in Monterey County is pesticides. In 2016, Monterey County, 9,284,537 pounds of pesticides were applied (DPR,2016). Out of these pesticides, 540,766 pounds of active ingredients were applied in Greenfield (UC Davis AGIS Lab, 2016). The concern arises when pesticides applications occur near the schools, and not everyone is aware of the impact pesticide drift and exposure have on children's health. In accordance to the California Environmental Health Tracking Program, "Monterey County has the highest percentage (25%) of students in the state that attend school within a ¼ mile of the heaviest pesticide use" (2014). In the same manner, "Latinx students are 3.2 times more likely to attend these schools" (2014). Though specific data of pesticide exposure near Greenfield schools is not available, residents must be informed about pesticides use, and the threats pesticides bring to their community.

IV. Project Assessment Process

The expected outcome consisted of interviewing ten community members about the effectiveness of three maps illustrating expected pesticide applications. The outcome was measured through qualitative interviews. The interviews contained five questions written in English and Spanish. However, the participants opted to be interviewed in English. After the forum, four interviews were conducted while two interviews were conducted by email, and a final interview was conducted through a phone call.

V. Findings and Results of Assessment Process

Mereceemos Saber/ We Deserve to Know outcome was close to being achieved because only seven interviews were conducted. Qualitative data indicated that participants found the

maps helpful at addressing expected pesticide applications. “The maps helped me see the areas of pesticide use in juxtaposition to the school sites” (J. Turner, Personal Communication, February 20, 2019). Moreover, six of the interviewees agreed that California's Pesticide Use Regulations are a good start to protect schools. “Good step forward, but we need bigger buffer zones and actual public notifications posted at least online and at 48 hours in advance” (M. Weller, Personal Communication, February 19, 2019). Moreover, two interviewees disagreed with California’s regulations. “Such regulations only protect from acute exposure, but do not protect from chronic, cumulative, or long-term exposure. It is questionable if those regulations protect acute exposure” (M. Sanchez. Personal Communication, March 6, 2019). “The California regulations do not apply to our city, I disagree with them” (Y. Martinez. Personal Communication, February 19, 2019). Some of the major themes from the interviews consisted of accessible information, good translations, colorful visuals, and connection with the audience. Though the expected outcome was not achieved, it is important for Safe Ag Safe Schools to consider doing follow up interviews right after presenting the project. Another option consisted of changing the data collection methodology. For instance, Safe Ag Safe Schools can create focus groups to discuss the effectiveness of the project and obtain participants' thoughts on California's Pesticide Use Regulations. To look at the questionnaire and maps, check Appendices C and D.

Strengths and Success

Mereceemos Saber/ We Deserve to Know strengths consisted of vast research documenting pesticides issues. One of the strengths consisted of the California Pesticide Use Regulations that provided the foundation for the expected pesticide applications maps near Greenfield schools. Another strength was Safe Ag Safe Schools advocacy work that provided

access to Monterey County annual notification data. Additional strengths were the creation of expected pesticide applications maps, and a curriculum to inform the Spanish speaking community about pesticide issues. A final strength was the intern's ability to present scientific information in a bilingual presentation, so community members visualized the schools' vulnerability to pesticide drift and exposure.

The project's success achieved included the completion of a curriculum, presentations, and three expected pesticide application maps. Another success was to present the maps in a bilingual public forum presentation to thirty-five community members. Additionally, all expected pesticide applications data for Monterey County was named and organized by the school district. Lastly, another success was the intern's ability to improve on Microsoft suite, data entry, and analysis and professional communication skills. A final success was community members reactions, positive feedback, and interviews.

Challenges and Limitations

The project's limitations and challenges were logistics to implement the intervention, time constraints, and limitations within the data analyzed because the county did not provide sufficient data to create a thorough analysis of expected pesticide applications. Lastly, another challenge was to conduct follow-up interviews. Conducting follow-up interviews was a challenge because some participants did not answer emails and phone calls. So, the intern did not achieve the expected outcome. Overall, despite the challenges, the intern managed to adapt to the changes and provide a project to Greenfield residents and Safe Ag Safe Schools.

VI. Recommendations

The recommendations for Safe Ag Safe Schools is to create maps for all the schools in Monterey Country, so residents have a better understanding of the expected pesticide

applications. The other recommendation is to continue advocating for safer pesticide regulations and educate the Spanish speaking community about pesticides issues and how residents can reduce the probability of getting exposed to pesticides. The results of this project signified that the Greenfield community wants to learn more about pesticides issues and how pesticides affect schools. The results also mean that the community is interested in learning about policy concerning pesticides regulation, and how those regulations are not enforced in Greenfield.

Consequently, Mereceemos Saber/ We Deserve to Know benefited Safe Ag Safe Schools and community members in several ways. First, Safe Ag Safe Schools gained insight on how to analyze and present expected pesticide applications data through maps. Second, Safe Ag Safe Schools learned to communicate extensive scientific content to the Spanish speaking community. Lastly, Mereceemos Saber /We Deserve to Know provided Safe Ag Safe Schools a permanent curriculum about pesticides issue with only having to modify a few slides depending on the target population and if the coalition encounters any future success. On the other hand, community members benefited from the intervention because they learned about expected pesticide applications near their children's' schools. Overall, the intervention brought together Safe Ag Safe Schools and the community to continue putting pressure on different levels of government for safer regulations to protect children from pesticide drift and exposure. However, some improvements for the project include adding interactive activities to the curriculum, so participants feel engaged and empower to discuss a highly political and controversial topic such as pesticides.

Broader Social Significance

Mereceemos Saber/We Deserve to Know relates to the macro level problem because it is a small piece of research that provides other counties in California an opportunity to analyze and

visualize expected pesticide applications. Moreover, the project provided the coalition with the opportunity to reach out to the Spanish community. By the coalition reaching out to the Spanish community, the coalition can learn different strategies community members use to mitigate the threat of pesticide exposure. Lastly, the project provided Greenfield residents an insight into how pesticides near the schools affect children's health and front-line communities.

VII. Conclusions and Personal Reflection

The most important insights I gained from my internship and project is that passion, dedication, and constant communication are required to create an intervention. I learned to work with other staff whose vision of my capstone project constantly varied. Therefore, I had to develop a project that satisfied the coalition and the university needs, so I learned to adapt to changes. While seeing my project change and witnessing that my mentor did not help me much, I felt lost and scared. Therefore, I learned to grow patience and re-discover my passion for the project. To re-discover my passion, I had to think about my family and the Spanish community. I knew that I must create a project that Greenfield residents did not only found interesting to learn about, but I had to show them how children's health is at stake because of pesticides. Therefore, I pushed myself to learn Excel and other software, and summarize the maps and California Pesticide Use Regulations. Consequently, I grew professionally because the project challenged me to become better at research and statistics, policy analysis, professional communication, and collaboration. Overall, despite all the challenges faced, I still managed to achieve some success in the project.

Safe Ag Safe Schools surely challenged me. I had to be good at public speaking, translation, community engagement, professional writing, and understanding policy. Some of the experiences that pushed me out of my comfort zone were meeting with policymakers and

provide my experiences with pesticides. Though I felt rejection from policymakers while sharing my story with pesticides, I learned to shift their argument and make them see my point of view from a different perspective. As I continued speaking with community members and staff, it became a habit to raise my voice and be fearless in front of policymakers. I learned to never be quiet and share my story. Then, I learned to simplify scientific data and translate information in understandable ways. Additionally, I saw the need of the Spanish community to learn more about pesticide issues, so I decided to become the bridge between them and the coalition. I translated the main website, some letters, and meetings. I ensure that the community members were heard and never felt left out during meetings and events. Eventually, the community members became my inspiration, and I dedicated my project to them. Therefore, I will forever remember the process and the people who helped me in my project. Also, I will never forget that a lady shook my hand after presenting in the forum. By the lady shaking my hand, my heart and soul were in peace. I obtained closure in my project because I did what I needed to do, to inform residents about expected pesticide applications near Greenfield schools, and the threats pesticides put on human health.

Overall, my advice for future CHHS student interns is to be patient, courageous, accept change, and maintain clear communication with the mentor and the capstone instructor. Also, advocate for yourself, schedule time during the summer to work on the project, and always find something inspiring and motivational to work through the stress and frustration. Finally, never give up. I know that sometimes capstone is stressful and time-consuming; however, it is crucial to understand that even if the project is not implemented, it is crucial to feel empowered and proud of serving the community.

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<https://doi.org/10.1177/1090198108328911>

Appendix A- The Problem Model

Causes/ Risk Factors	Macro Level Problem	Consequences
<ul style="list-style-type: none"> • Policy • Ag industry • Pesticide companies 	Pesticides put human health at risk.	<ul style="list-style-type: none"> • Diseases • Environmental contamination • Pesticides in produce
Causes/ Risk Factors	Micro Level Problem	Consequences
<ul style="list-style-type: none"> • Limited training • Limited knowledge about pesticide drift and exposure • Proper description of pesticide ingredients 	Too many Spanish speaking residents are unaware of pesticide issues.	<ul style="list-style-type: none"> • Take-home pathway pesticide exposure. • No proper work clothes • Acute and chronic health conditions. • Underreported pesticide issues

Appendix B- Scope of Work

Table 1 Scope of Work

Title: Mereceemos Saber

Project description: This project consists of one educational presentation of forty-five minutes. The presentation aims to educate parents about pesticides issue. A curriculum will be designed to present parents the most relevant information about pesticides issue and how they can help share their knowledge about pesticides issue with other parents in the community.

Goal: Increase awareness and knowledge of pesticides among Greenfield residents.

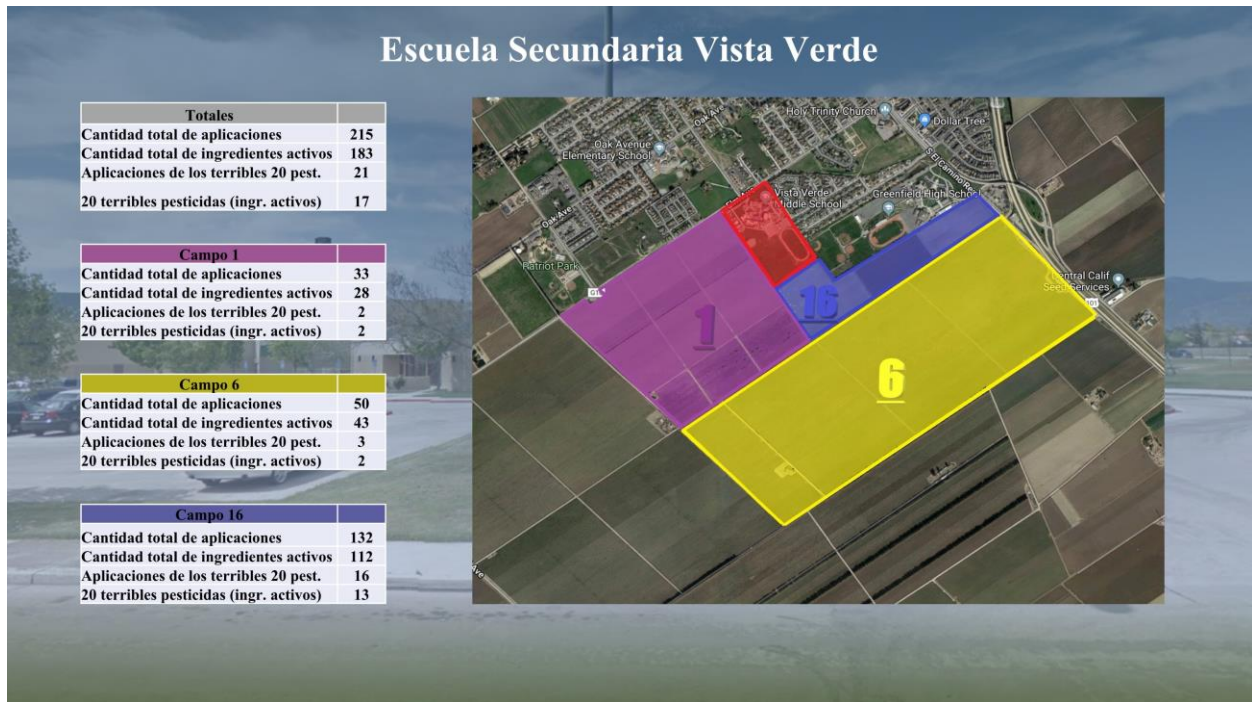
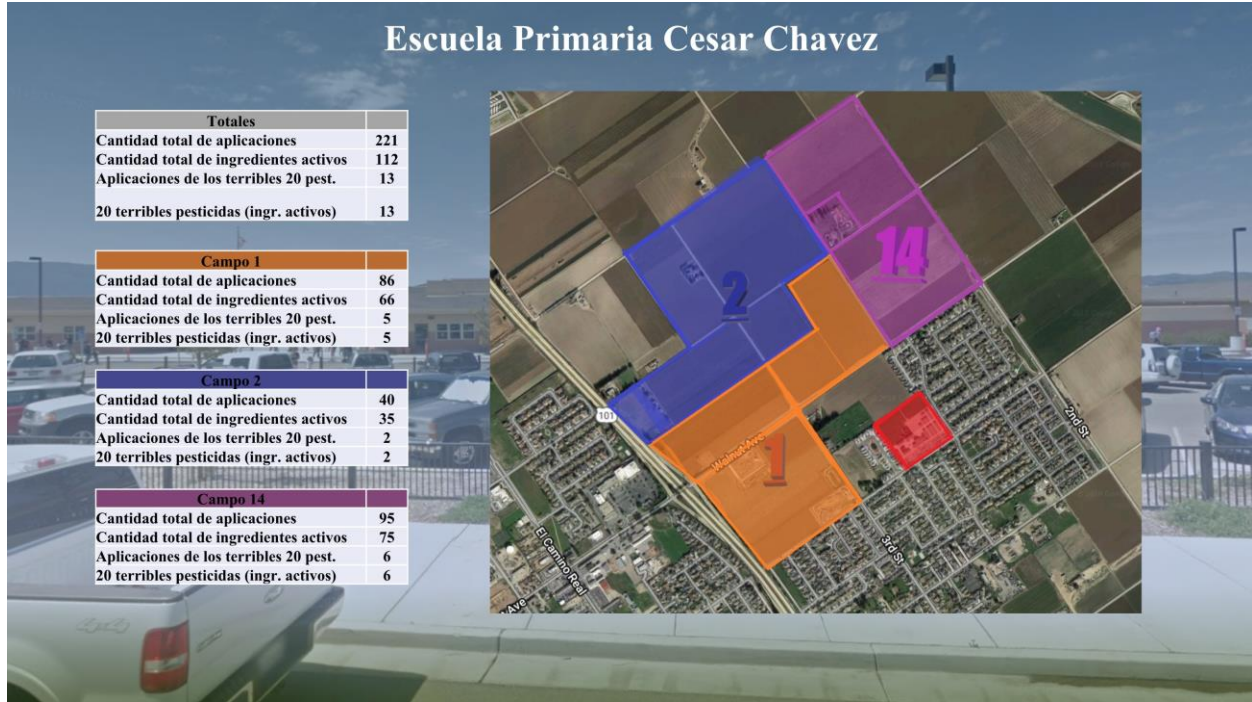
Primary objective of the project: By the end of the intervention, 60 % of Spanish speaking parents will increase their knowledge on pesticide drift and exposure, health conditions, rights, and strategies to reduce the chances of been exposed to pesticides. By the end of the forum presentation, the inten will interview 10 participants about the maps effectiveness at addressing intended pesticide applications near Greenfield schools.

Activities	Deliverables	Timeline/deadlines
1 First time that mentor introduced me to Monterey County pesticide application data.	Looked into the data and created google drive folders for each of the school districts in Monterey County and the licensed day cares. (ACCOMPLISHED)	August 29, 2018
2 Named each pdf pesticide data of Monterey County.	Named pdfs of each of the school and licensed day cares in Monterey County. (ACCOMPLISHED)	September 10, 2018
3 Translated Terrible Twenty pesticide list to Spanish and created folders for each school district to put the correct pdfs in the correct school district.	Translated Twenty Pesticide list and organized pdfs of each of the school districts folders. (ACCOMPLISHED)	September 12, 2018
4 Finished placing pdfs on the school districts folders and created a master folder where all the other folders are located. Discuss capstone project ideas with mentor, mentor’s supervisor, and capstone instructor.	School district folders and pdfs are organized. A master folder was created and shared with mentor through Google drive. Final capstone project idea was approved. (ACCOMPLISHED)	September 26, 2018
5 Started to brainstorm with mentor a visualization of my data and intervention presentation. We agreed on creating a presentation in English and Spanish. However, only the Spanish presentation will be delivered to Vista Verde Middle School parents because the school has one of the highest pesticide applications in Greenfield.	Mentor seemed to want a different data visualization than me. Two master presentations were created and only delivered the Spanish presentation may be delivered in Vista Verde Middle School Parents. (ACCOMPLISHED)	October,03, 2018
6 Researched how to write a curriculum	Obtained a solid idea of how to write the curriculum. (ACCOMPLISHED)	October 20, 30 2018
7 Wrote down what sections may be covered in the curriculum and asked mentor for feedback.	Had a conversation with mentor about my capstone project outline. She wanted me to emphasize the section on “know your rights” and agreed on all the other sections. (ACCOMPLISHED)	October 15, 2018

8 Created a draft of scope of work and brained storm on an outline for a curriculum. Also, worked on finishing up capstone report 1 draft.	Draft scope of work is finished, but some days were modified. Finalized capstone report 1. (ACCOMPLISHED)	October 22, 2018
9 Worked from home in creating a more linear outline for the curriculum and focused on selecting, separating, and transferring Vista Verde Middle School data on an excel sheet.	A more linear outline was created for capstone project. Vista Verde Middle School data was added in a folder and in a excel sheet. (ACCOMPLISHED)	November 5, 2018
10 Talked to mentor about capstone, worked on curriculum outline, and searching for intervention curriculums about pesticides issue.	Mentor looked through the outline and wanted me to change the name of my project. Still have not found an interesting curriculum. (ACCOMPLISHED)	November 7, 2018
11 Worked on finding data for the sections in the curriculum outline. Found a curriculum of an intervention related to pesticides issue that fits the idea of my intervention.	Only a few peer review journals were found to match up the sections on the capstone project outline. Found an interesting curriculum and read some of its major components. (ACCOMPLISHED)	November 14, 2018
12 Individual consultation with capstone instructor to talk about my curriculum project outline.	Individual consultation occurred, and the instructor provided good feedback on it. She also suggested to talk to mentor’s supervisor about some pieces of the curriculum outline. (ACCOMPLISHED)	November 16, 2018
12 Research for the sections of the curriculum outline continue.	A few more peer review and pamphlet articles were found. Still looking for more relevant information to include in the outline. (ACCOMPLISHED)	November 20, 2018
10 Draft the curriculum and the presentation.	Drafts for curriculum and presentation were done. (ACCOMPLISHED)	December 12, 2018
11 Show mentor the curriculum’s and presentation’s draft for feedback.	Analyzed and made modifications to curriculum and presentation based on mentor’s feedback. (ACCOMPLISHED)	December 22, 2018
12 Contact school to do the presentation.	Initial contact with school is been made. (ACCOMPLISHED)	December 5, 2018
13 Created the intervention’s logic model and added objectives to relevant sections to curriculum outline.	Decided to add objectives to outline to be used as a reference to create the assessment plan. (ACCOMPLISHED)	December 4, 2018
13 Look for two volunteers if needed to do childcare.	Volunteers confirmed to do childcare (NOT ACCOMPLISHED)	December 18, 2018
14 Design pre and post surveys.	Surveys are designed. (ACCOMPLISHED)	December 26, 2018
15 Determine a day and time to present presentation in Vista Verde Middle school parents.	Day and time were decided to present the project to Vista Verde Middle school parents. (NOT ACCOMPLISHED)	January 10,12, 2019
16 Post in social media and send email invite SASS members to attend the presentation.	Invitations to SASS members through social media and email were sent to SASS members (NOT ACCOMPLISHED).	January 12, 25, 2019
17 One of the projected days to implement project at Greenfield High after the ELAC meeting.	Had everything done to present intervention to at least 20 parents. (ACCOMPLISHED)	January 16, 2019

18	Finished putting data from Greenfield High and Cesar Chavez Elementary in excel. Also, read some research for curriculum and checked in with mentor.	Created pivot tables for Greenfield High and Cesar Chavez Elementary. Got a date to submit to Sarait and Mark my curriculum and presentation on February 4 th . (ACCOMPLISHED)	January 22, 2019
19	Worked on curriculum, survey, and presentation	Curriculum was almost done, survey is done and translated to Spanish, and presentation was half-way. I discovered my capstone will not be implemented in Vista Verde. (ACCOMPLISHED)	January 29, 2019
20	Meet with mentor and instructor to talk about project's implementation.	Finished a draft of my capstone and received feedback. I agreed to present only the maps on a public forum. (NOT ACCOMPLISHED)	February 5, 2019
21	Learn CA pesticide regulations	Learned CA regulations. Agreed to present maps on a forum on February 15. Studied and understood CA pesticide regulations amongst schools and daycares surrounded by pesticides. Improved my maps. (ACCOMPLISHED)	February 7, 10, 2019
22	Worked on slides for Forum	Almost finished slides for forum presentation and maps' improvements. (ACCOMPLISHED)	February 12, 2019
23	Finish slides	Finished and added slides to master forum presentation. (ACCOMPLISHED)	February 14, 2019
24	Participate in public forum	Presented the two regulations and 3 maps in English and Spanish for 14 minutes. Conducted four interviews after the forum (ACCOMPLISHED)	February 15, 2019
25	Emailed followed up interviews	Received one interview (ACCOMPLISHED)	February 16, 2019
26	Started entering interviews data in a google doc and did followed interviews by phone	Obtained two more interviews and added all seven interviews in a google doc. Obtained sign in sheets. (ACCOMPLISHED)	February 19,2019
27	Facilitate interviews readability	Created a table to facilitate the interviews' data collection and comprehension. (ACCOMPLISHED)	March 3, 2019
28	Come up with themes	Analyzed interviews data and came up with themes (ACCOMPLISHED)	March 12, 2019
29	Correct and Submit final project to SASS	Submitted project to SASS (ACCOMPLISHED)	April 2019
30	Complete reporting requirements	Final agency and capstone reports (ACCOMPLISHED)	May 17, 2019
31	Prepare capstone presentation in selected format.	Present at Dress Rehearsal for grading (posters submitted) (ACCOMPLISHED)	April 15-19, 2019
32	Final preparation for Capstone Festival.	Final presentation at Capstone Festival! (ACCOMPLISHED)	May 16, 2019

Appendix D- Greenfield School Maps



Escuela Preparatoria de Greenfield

Totales	
Cantidad total de aplicaciones	351
Cantidad total de ingredientes activos	308
Aplicaciones de los terribles 20 pest.	30
20 terribles pesticidas (ingr. activos)	25
Campo 1	
Cantidad total de aplicaciones	23
Cantidad total de ingredientes activos	21
Aplicaciones de los terribles 20 pest.	0
20 terribles pesticidas (ingr. activos)	0
Campo 6	
Cantidad total de aplicaciones	43
Cantidad total de ingredientes activos	39
Aplicaciones de los terribles 20 pest.	2
20 terribles pesticidas (ingr. activos)	2
Campo 14	
Cantidad total de aplicaciones	115
Cantidad total de ingredientes activos	97
Aplicaciones de los terribles 20 pest.	10
20 terribles pesticidas (ingr. activos)	8
Campo 16	
Cantidad total de aplicaciones	91
Cantidad total de ingredientes activos	81
Aplicaciones de los terribles 20 pest.	10
20 terribles pesticidas (ingr. activos)	9
Campo 18	
Cantidad total de aplicaciones	79
Cantidad total de ingredientes activos	70
Aplicaciones de los terribles 20 pest.	8
20 terribles pesticidas (ingr. activos)	6

