

5-2021

Effectiveness of Digital Literacy Classes

Beatriz Perez-Haro

Follow this and additional works at: https://digitalcommons.csumb.edu/caps_thes_all



Part of the [Education Commons](#)

This Capstone Project (Open Access) is brought to you for free and open access by the Capstone Projects and Master's Theses at Digital Commons @ CSUMB. It has been accepted for inclusion in Capstone Projects and Master's Theses by an authorized administrator of Digital Commons @ CSUMB. For more information, please contact digitalcommons@csumb.edu.

Effectiveness of Digital Literacy Classes

Beatriz Perez-Haro

Loaves, Fishes and Computers, Dalia Gonzales

Collaborative Health & Human Services

Department of Health Human Services and Public Policy

California State University Monterey Bay

12/10/20

Author Note

Beatriz Department of Health Human Services and Public Policy, California State University Monterey Bay. This research was supported by Loaves, Fishes and Computers. Correspondence concerning this article should be addressed to Beatriz, California State University Monterey Bay, 100 Campus Center, Seaside, CA, 93955. Contact: bperez-haro@csumb.edu.

Abstract

Loaves Fishes Computers (LFC) is a non profit organization that offers low cost computers in Monterey County to families in need. The macro level problem is that families don't have access to technology. The agency problem is that parents don't know how to use a computer. The agency offers digital literacy classes (DLC) to parents who have school-aged children and need a computer. Classes are offered to parents who want to learn more about computers. A survey was conducted to determine if there is an improvement in the computer skills of parents. The most important finding is that parents noticed an improvement in their technology school and they now know how to use a computer after they took the class. The agency should continue providing these classes for parents to help them improve their technology skills.

Keywords: Computers, Non-profit organization, Families, low cost computers.

Agency & Communities Served

Loaves, Fishes and Computers (LFC), is a non-profit organization located in Salinas California. The mission of the LFC is “Loaves, Fishes and Computers’ (LFC) purpose is to help local individuals and families overcome the digital and economic divides by providing low-cost computer systems, digital literacy classes, hands-on technology workshops, and technology assistance/ repair for low-income individuals and nonprofit organizations, while providing volunteers an encouraging and gratifying place to learn about Computer Science and Information Technology” (Loaves,Fishes and Computers, 2019). The mission is the part that stands the most when we research for the agency because this really describes what LFC means. I know for a fact that LFC is a really good organization because of the time that I have been in the agency. I have had the opportunity to see how they help different people and how they try to give them everything that they can to help.

LFC has been offering their services since 2009, this organization helps low income households to have access to technology with a low cost or for free. This is a good opportunity that is being offered to different people because it gives them the opportunity to have a computer at home and having the ability to use it. The agency offers different services for example it offers computer literacy classes, community supported digital inclusion and computer reuse program, technical support/ computer repair program, volunteer career training, job exposure and community engagement. As this agency is an organization that helps a lot of different people, the population that they serve are: low-income individuals, disable people, unemployed, students, seniors, veterans and also non profit organizations. These different populations can be helped if they go to the agency or if they attend some of the classes and/or workshops that are offered. Some of the collaborative partners with LFC are: CSUMB, Hartnell, Yellow Brick Road Benefit Shop, The James Foundation, Monterey Peninsula Foundation, Community Foundation for Monterey County, among others.

Loaves, Fishes and Computers is an agency that tries to help everyone that really needs their help. The population served by the agency are low income individuals, students, and also the parents of students who are farm workers that have no education. LFC tries to help all the communities that are around salinas most likely all Monterey count. For example, it serves from King City all the way to Watsonville. The people that are being served in this agency are adults, 18 years and older. The agency helps people in general regardless of gender or race, let alone the first language that people learn. LFC tries to be a good agency and does not want to discriminate against anyone, so they also help people who do not have a good education, with a low income and especially those who work in the fields because they are the ones who need more help with technology. The agency does not only have different resources for those that are low income or are farmer workers, but the agency has a lot of different low cost computers that everyone can buy. The reason they are cheap is because they are not new computers but the agency works hard to make them seem new. There are computers that start at \$50 to \$80, depending on the computer you want. It is a different price, but the price stays at that average because like I said before, they tried to help those that really need it.

Another way the agency helps different people is that the agency offers different classes in different parts of Monterey County where students, in this case the parents, are taught different programs, such as gmail, google docs, and The browser, among other different programs that are important in technology, once students have finished 7 to 9 classes they are given a free computer, and in this way they are helped since they receive their computer at no cost. This important because based on the different people that the agency served this helps a lot to someone that really need a computer at home and because of the pandemic that is going on right

now, with students having all the classes on line and everything being online, this makes thing way easier for those that did not had the opportunity to buy a computer for their kids, now this people have the opportunity to offer technology to their children and even for themselves for their personal use. This is something that helps all of us because technology is important and the agency helps with all this.

Looking to the different data of the Monterey County, California state and the United states it worries me because the numbers of the different populations that the agency serves they are bigger or close to what is national, these numbers are very high compared to what they are in the state, it is difficult to work in an agency that tries to help people but when these numbers are very high, there is not a lot that we can do for all those people since the resources are not enough. An example of these statistics that caught my attention is poverty, since nationally the percentage of poverty is 10.5% while in Monterey County is 13.3% (United States Census Bureau, 2019). While talking about these different numbers we can take into account the hispanics and latino as well with a 59.4% in poverty while in the United States it is 18.5% (United States Census Bureau, 2019). As we can see the numbers in Monterey County are higher than nationally and this is alarming. The statistics showed above are an example of how poverty is a big factor in Monterey county and we can see that the most affected ones are hispanics or latinos, meaning that there is a big chance that they are the ones who are in need of almost everything. In this case, it would be great if there are any computers that they can buy for a low price or it would be much better to have a free computer. As we can see, the numbers are high and this causes different problems for the agency since its goal of helping people becomes more difficult due to the large numbers of people who need help.

This is an issue that it's hard to work with because knowing the percentage of people that are in poverty for example, they can't afford a computer (most of the time) and the agency can help all of them. I think that the most common issue that the agency has is having 13.3% of the population in Monterey County be in poverty and not having the necessary equipment to help.

One of the agency's needs is the lack of computers or other technologies, such as monitors, printers, screens, keyboards and even the laptops that are given away in classes. The failure of these teams is something that is really needed in the agency and since she is a non-profit agent, she has to wait for more equipment to be donated. The agency's population is different compared to nationally, the agency is located in Salinas, where we can see a high poverty level. In Salinas the poverty rate is 17.2% while in the United States it is 10.5%, this number shows that the poverty level in Salinas is almost double as nationally (United States Census Bureau, 2019). It even gets interesting because the poverty level in Salinas is greater than California and Monterey county, as we can see in the table above Salinas has a higher poverty level. With this information we can come to the conclusion that there is not much work for people, the only thing that is certain is that in the whole county of Monterey there is field work, where most of the people work and this can be one of the most important factors for which poverty levels are higher than elsewhere, since for people who work in the fields, the money they earn is not enough because the rent is very expensive in California and the money that earned in the field is not enough for the different expenses of a household. Poverty is a social problem that affects many people. In this case it affects 17.7% of the population in Salinas(United States Census Bureau, 2019). Not only that affects the community but it also affects the agency I am in, since the agency focuses more than anything on people with low income and While Salinas is with this

high percentage, it is much more difficult for the agency to try to provide services to all those people. The agency does not have the necessary equipment to help many people but I know that the agency does what it can to help those most in need. I also know that in these difficult times that we are going through the agency is there helping with what it can for those people who need it.

As I mentioned before, the agency is working to help people who need technology right now and we are working on taking different classes online in order to continue offering the different agency programs and to help people with a free laptop. This is something that the agency is working on to be able to do it as quickly as possible and as it is something new we have to learn to handle it well and make sure that people feel comfortable with what we want to present and that, like us, those people learn. Until now there is no date set to have these programs ready but as soon as everything is ready, flyers will be made and we will post it on the LFC website so that people know more about it. Even Though we are not having the classes right now, the agency is still open for those that need a computer at a low cost, there is a great place where people can easily purchase one. With these different resources the agency plans to give an opportunity for those that need one so we could make a difference in their families.

Problem Description

The agency's micro-level problem is the families, the agency specifically focuses on families, it is always on the lookout of what they can offer to those families who need help with technology. The social problem that the agency is trying to solve is the problem of having a lot of

people not knowing how to use a computer. The majority of parents who go to the classes is their first time grabbing a computer and actually using it. Based on what we have learned from the classes, we notice that for parents it is a little more difficult to learn everything about computers. We also want to help families improve their abilities and this way parents can help their children in school. Most families do not have enough knowledge about computers and in these circumstances, with everything that is happening with the coronavirus, these problems are becoming increasingly difficult to solve since children are not used to working from home and about all parents who do not know how to help them and this causes a lot of controversy. The reason for this is that most of the parents do not know how to use a computer and could not help their children in school. Also another serious cause is that parents do not have enough money to buy a computer and this causes children to not have access to their classes and cannot send their homework. Based on this, if children cannot connect to the internet to do their homework and attend classes, their averages will go down and the opportunity to pass their classes may be less possible, this is a big problem for the community and above all for parents.

Contributing Factors

For this project I choose a macro-level problem of unemployment and lack of needed materials as the contributing factors. With this project I am directly addressing a macro-level problem, in Monterey County there is a low percentage of the population who has computer access at home. This problem has been going on since a long time ago but it was not taken as much importance as now, the use of computers in these times are much more necessary since students have to have access to the computer and the Internet from their homes to be able to do

their homework. The problem is that there is not sufficient money in the schools to provide computers to every single kid, parents do not have money to also provide a computer to their children. At the Greenfield Union School District only 20% of students have access to a computer at home, while in Chualar Elementary School only one in 60 families have a computer at home (Rodríguez, 2020). As we can see this problem has become bigger since having access to a computer now is essential in order to perform well in school and sometimes to work from home. This problem might decrease due to the ipads that schools provided to Elementary, Middle and high schools, however some families do not have access to the internet and others also need computers for those who are in college or university.

The population that is most affected are the students in general, since the elementary students all the way to college students. However, I believe that the people who suffer the most with this problem are Latinos / Mexicans, since most of the time they work in the fields and do not have enough money to be able to offer computers to their children. The economy is a huge contributing factor to this problem because if parents do not have a good economy they can't give the necessary tools for their children to perform well in school. Another contributing factor can be language barriers, this can cause confusion because they don't know how to read, write or speak leading to not knowing how to ask for help when needed. The lack of connectivity can also be a contributing factor because most students get a free ipad but they might not have internet access at home, this can also cause low performance in school. A contributing factor that I think it is also important is the inequality to all, must of the students can get a computer from school they can take a computer from the school either loaned or given, however not all students qualify

for this type of aid and this causes that students cannot continue with their classes as they were and some may lose the semester.

Consequences

The real question is, what is poverty? Well, poverty has different meanings, it all depends on the perspective that you are looking at the problem. In 1998 a UN statement on poverty states: “ it means lack of basic capacity to participate effectively in society. It means not having enough to feed and cloth a family, not having a school or clinic to go to, not having the land on which to grow one’s food or a job to earn one’s living...” (N.A). This brings different consequences such as people living in the streets and with bad health. For the lack of needed materials I have the consequence of low performance in school because if their children do not have the books or the computers that they need they can’t really do their homework or attend class. Another consequence for this different contributing factors is that people do not have an opportunity to work with a computer and to learn how to use, and now day having a computer at home and knowing how to use it is very important and a consequence of not having this opportunity is that parents might lose their job for lack of knowledge, and students might lose their school year because of not having the necessary equipment to do their homework.

Problem Model

Contributing Factors	Problem	Consequences
Unemployment	Lack of technology knowledge/ resources	poverty
Lack of materials needed		Students fail school
Lack of knowledge		No good opportunities

Capstone Project Description and Justification

Capstone Project & Project Purpose

This is an evaluation project. I am doing an evaluation about how effective the agency's Digital Literacy Classes (DLC). The different components that I am going to be responsible for completing will be creating the survey, collecting data, identifying the different participants, analyzing the data, and at the end documenting the final results in a report.

Project Justification

This project should be implemented because it is important for the agency to know how the classes are working and if they are not working, this would help to find the problem and see how they can do better. With all this about the COVID , a lot of people are struggling with technology. Some people do not know how to use a computer and this is a huge barrier for their children to perform well in school. Based on the interviews that I have done, I notice that between 80-90% of participants feel like this class has been really helpful for them and use a computer by themselves, while 100% reported that they learned how to check and send emails to be on track for their children's school. The agency has come together and managed to keep doing Digital Literacy Classes to keep teaching the parents how to use one and at the end to provide them with a computer for their own good. The primary goal of this project is to make sure people who assist the classes are going to learn how to use the computer, to make sure that after the class they are still using the computer and also to help them be able to help their children in school. One objective with the classes is to make sure that people feel more

comfortable using a computer and that they also learn about the different resources that the agency offers.

There are different people involved in this project, some of them are those that are helping in the agency. They all care about this project because they want people that don't have enough resources to have an opportunity to obtain a free computer and at the same time to learn how to use it. At the end the results that we want to get from this is that people know how to use a computer and this way they can also access the internet for whatever they want to use it, so this would make it easier for their children, for them to also have someone that can help them with school and finally the agency will benefit from this because they can get more help from the board so they can keep providing this resources to all those who need it. This means that if the agency gives good results of this project, there is going to be more people interested in donating computers/ equipment that they might not use any more for someone that really needs it and this makes the agency get more equipment to offer.

Project Implementation

Method: The method that I implemented

for this project was surveys. I called people that took the Literacy Digital Classes in 2019 and part of 2020, and I collected the different data for their responses about the feedback for the classes with this survey. The survey was created by me and approved by my mentor, this survey was between 10 and 15 questions, and took around 10 min. In total there are 150 people from last year who attended the classes and I interviewed them and I evaluated the effectiveness of the classes. I believe that this project is a Research Validated Best Practice because I did an activity

that can prove the effectiveness of our different Digital Literacy Classes. I analyzed the results by making a presentation to the agency and a chart to make the numbers be more clear and see how this is working, and what changes can be made in order to have a better result. These classes offer different activities to learn everything about the computer. For example, to navigate in the internet, to create and send an email, they also learn how to log in to an app called “ Rosetta Stone" they used it to learn how to speak english The survey at the end of the classes is to see if the activities are effective for the people and at the same time we can evaluate the agency’s work.

Participants: The main participants are the parents (students) who attend the classes, their primary goal is to learn everything that is being taught and to keep using their computer for a longer period of time so they can help their children and other people that might need it. Other people that would be participating is the teacher, who is responsible for teaching everything and being patient to teach every important point from the class. My mentor, who is responsible for having a conversation with me and making sure that everything is going well. Myself, I am going to make sure that I get all the data needed and with this I can make sure if these classes are working or not.my responsibilities are to call every parent who assisted the classes and make sure I get data from every single one of them. I also have to check the data and see if there is something that we have to change to have a good outcome out of this project. And last but not least, the executive director, who is going to make sure that the data is progressive and that the outcomes are good for the agency, he is also going to make sure that we are all doing our job and that everything runs good.

Resources: For this project I do not really think that I have to do any meeting with people, or finding materials since this project I have to be calling the participants. I do not need to be in the agency, I can do this work from my house and at my own time. Of Course I have to set up a time to be calling people so I can have enough data and to make sure I did the survey to all participants.

Supplemental: This project was created because the agency wanted to know if the classes are working at all and if people are using the provided computers after the class, but now with all this about the pandemic we thought that it was going to be way more important to have this information because people do not know how to use a computer and with this classes they can be working from home or even helping their children with school. The problem at this time is that there are a lot of people that do not have access to computers and/or internet and it makes things harder because now we have to be working on computers all the time to do our work or projects. It is important for the agency to make sure that people know about the different resources that the agency has and more important that people can get a computer for free after attending some classes and they learn from them too. A lot of people have been helped by the low cost of computers and know the agency is providing free computers for those that need one.

Potential challenges: Some of the obstacles that we might face during our evaluation is that people won't answer the phones, they might have changed their numbers and we would not get enough data to be analyzed. Another challenge that we might have is having people forget that

they took the class or what they learned in the class because they have passed a considerable amount of time since they took the class. It is also important to keep in mind that it might be difficult to contact people and have them have the time to answer our questions, they might be working and not be available at the time that I am available. Also, it can be a challenge to have all people answering their phones because some people are scared of scams and they do not want to answer any phone calls that do not register on their phones. Something that I can do to solve these problems is that I can leave a message and call back at a different time, make calls at different times to see if there are more people available and also I can also try to call on weekends.

COVID-19 Accommodations: First of all the most important safety precaution that I would have is to try to not go to the agency if I do not have to go, it has to be something really important for me to go to the agency, this project does not require me to be at the agency so it is not necessary to go. In the other hand if we can go back to the classrooms and do the classes in there the precautions that we would do are, social distancing, people must have their masks on ALL the time, they would have to use hand sanitizer and we might also have to take their temperature before they enter the classroom.

Scope of work and timeline: Below is the SOW table that will include the following: the main phases that are creating the survey, call participants, collect data, and at the end make a report with the data collected. First I have to have all the questions to be multiple choice questions, then start calling participants and see if they are going to give me a good set of data, finish all the

participants by February- March and start doing the report from the collected data. Have the report ready to present to the agency and to the board in April. A detailed implementation plan and timeline can be seen in the Scope of Work in Appendix A.

Assessment Plan

The expected outcome that my mentor and I want to achieve from this project is to deliver a survey that demonstrates the improvements of the different literature classes in our clients. The measure that we used to assess our projects progress is by gathering data from our classes we were taught in the last year and a half. We collected data with a survey created by me and revised by my mentor. The survey has different questions such as how did the class impact their everyday life, if they feel better when using a computer after the class and one of the most important questions we have in the survey is: if they learn something new with these classes. The total of people expected to participate was 150, we only got 100 students to respond to our questions. We got some updates and feedback about the classes. The way that we collected data is by making calls to clients who took the literacy classes on Feb- Dic of 2019, and right before the pandemic started in 2020. With the data collected, we obtained some feedback and I expect the agency to make the necessary changes to improve our classes. We gathered data from multiple classes and different participants to get an understanding of what their interests are. Participants are given a chromebook to utilize in their everyday life, and this way they can also get more familiar with technology.

The method used to gather evidence to measure our outcomes was conducting a survey, this helped us understand what areas we fall short and lack, and with this we can improve our

classes. We would also expand throughout the community reaching more people to join the digital world we live in.

Expected Outcomes

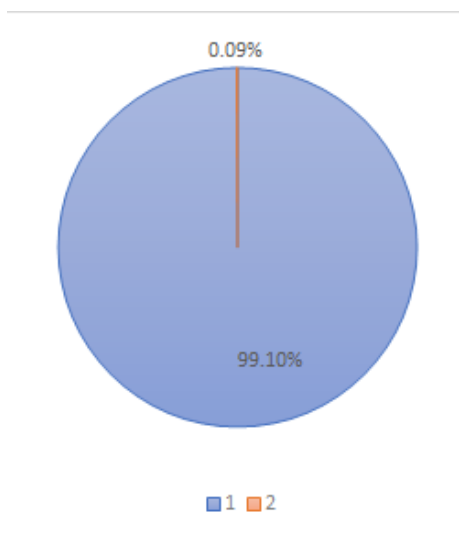
The most important thing that I think I will achieve with this project is to show how important technology is in our lives and along with this, I will show that it is necessary for people to have help to be able to understand and learn more about technology. For this same reason I decided to do this project because it is important for the clients, for the agency and for the popularities that the agency helps. With the project, the agency will be able to find out if the things they are teaching are helping clients or if certain modifications have to be used in order to teach what is necessary. Finally, what this project will do is demonstrate that the classes teach parents how technology works, that they learned the basics of using the computer and especially how to use the different applications that are most important for their learning.

Project Results

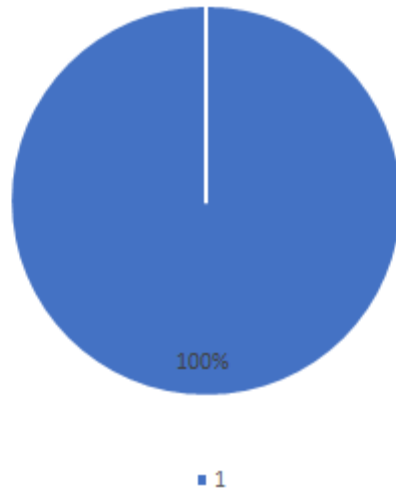
After all, the final results are really good. To be honest if it was what I expected, the classes are of great help for clients since they are very easy to follow and above all it has a lot of important information that parents need to know. The final result of the classes is very good as it shows that 99% of the people who took the class felt comfortable being in the class. While 1% of the people interviewed did not feel comfortable with the class. On the other hand, 100% of the people interviewed noted that there was an improvement after they took the class.

After all, I can say that the project did achieve the expected outcomes. The expected outcome was to get good responses from people who took the different classes and to prove that the classes do make improvements in someone's life. With these different results we notice that the classes do help for the majority of the people who attended and that those people are happy with the different skills they got from this class. Even tho, there was 1 person who wasn't happy with the class, the agency is going to change some things so that it won't happen again and for next time we can get 100% satisfaction from clients.

In this graph you can see that 0.09% of responses did not feel comfortable using a computer during the class, while 99.10% felt comfortable using it.



Another important result that I got from this survey was that there was an improvement in clients. All of the clients interviewed reported that they saw an improvement in their life after taking the class.



We can see that 100% of clients answered that they saw improvement after the class with their technology skills. Based on these results we can see that the classes are working well for the majority of clients. This means that Digital Literacy Classes are making a change in clients.

Conclusion & Recommendations

In conclusion I can say that this was a good project, I learned a lot of new skills with technology. I also learned that trying to call people to ask them about something that was too long ago is not a good idea because some people might just forget what they learned. It was hard to get the data because of not having the opportunity to be in-person on the agency and not having direct contact with the clients. Even though we have several challenges to get all this information, I came out with a really good result. We got the outcomes that we were looking for to move forward with these classes. This was a really good project, but I can recommend a pre-post survey. With this new recommendation the agency can make a comparison of what

clients knew at the beginning of the classes and what they really learned at the end of the class. This will make the agency compare the results faster and will have more accurate responses.

Personal Reflection

To conclude, I want to say that this experience was so helpful and it really helped me understand the importance of technology and how important technology is in these times and as without technology many doors can be closed. I realized that many parents do not have the opportunity to offer a computer to their children due to lack of economy. I also realized that it is very difficult for parents to try to help their children with their homework, or just have them join their classes. Now that everything's online, it is much more difficult for parents since their obligation is doubled.

Being able to be in this agency helped me learn a lot about technology as well. In the different classes I attended, it helped me learn some things that are important to know about technology. At the beginning, when I started doing the internship I did not like it, because I don't like technology, it was difficult for me. However, as time went by and I was working on different things to clarify clients, the agency became more interesting to me, after talking about the project and how it was going to be implemented it was more interesting for me and in the end I think this was something that It was worth it, because I learned and above all because people learned from this too.

During the process of the project it was not easy at all because there were several problems that made me doubt the job I was doing and sometimes I wanted to leave everything and not continue doing it. However, my mentor was always helping me solve the problems that

arose and that is how we progressed little by little with the project. Now that I finished it I realized that people are very happy with the agency and with what they do to help them. I really liked being able to do this project and help the agency with the results. I learned a lot from this experience and in the end the results were very good.

References

(United States Census Bureau, 2019).

<https://www.census.gov/data/tables/2020/demo/income-poverty/p60-270.html>

(Nov. 2020). The Californian: Living in the dark. (D.Rodríguez)

<https://www.thecalifornian.com/in-depth/news/2020/10/19/creating-equity-all-students-why-has-taken-global-pandemic-remedy-inequities-education-monterey-kids/5779744002/>

(May. 2013). Monterey County Weekly: Monterey County schools stake their future on high technology. (n.a)

https://www.montereycountyweekly.com/news/local_news/monterey-county-schools-stake-their-future-on-high-technology/article_bdd1fe12-d85f-55a6-8ffa-0a193171dcf1.html

(Monterey County Community Action Partnership). (n.d), (2019). Community Needs Assessment.<https://www.co.monterey.ca.us/home/showdocument?id=77726>

(N,A). Guidance to applicants on targeting poverty

pockets.<http://www.stoptb.org/assets/documents/global/awards/tbreach/Poverty%20pockets%20TB%20REACH%20Wave%203.pdf>

Appendix A

Scope of Work

Scope of Work Template (<i>Sample phases, activities, deliverables, timeline</i>)					
<ul style="list-style-type: none"> ● Survey ● Making calls ● Collect data ● Make report ● Present 					
Title: Agency Evaluation					
Project description: I am going to collect data from people who attend the Digital Literacy Classes and see if there is an improvement on people's knowledge with computers.					
Goal: Improve the knowledge in technology with Parents					
Primary objective of the project: Increase children's performance in school and improve computer literacy with parents					
Phases		Activities/Tasks		Deliverables	Timeli ne/ deadlin es
1	Select capstone project	1.1	Discuss capstone project ideas with mentor and agency staff	Generate a list of capstone project ideas.	Sept 2020
		1.2	Discuss ideas with agency staff	Submit a list of potential ideas to mentor for review/approval	Oct 2020

2	Plan project	2.1	Discuss how the project is going to be	Talk to mentor and see who is going to be interviewed	Oct 2020
		2.2	Discuss ideas of questions & Script	Discuss with mentor the different questions that are going to be using as well as the script that I am going to use	Oct 2020
3	Implement project	3.1	Call Clients	Start calling client to see if the survey is going to work	Nov 2020
		3.2	Collect Data	Start to fill out the survey	Nov 2020
		3.3	Analyze data	Discuss with mentor the results that we got	Jan 2020
4	Assess project	4.1	Compare Data	Discuss with agency to see if classes are working	Feb 2020
		4.2	Put together Data	Start working on report	Mar2020
5	Report on project findings	5.1	Complete reporting requirements	Final agency and capstone reports	Apr 2020

		5.2	Prepare capstone presentation in selected format	Present at Dress Rehearsal for grading	
		5.3	Final preparation for Capstone Festival	Final Capstone Festival presentation!	May 2021