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Are you Listening Students? It's me, Zoom: Engaging High School Students During Distance Learning

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Abstract

The focus of this capstone project is to improve student engagement during online learning. Over a year ago, schools had to shut down due to the COVID-19 Pandemic, and online instruction began. Teachers and students had to adjust to this new mode of instruction. And although new technology made this transition more manageable, students' needs in an online learning environment differ from face-to-face instruction. Distance learning has presented many challenges this past year because most of our school systems are not set up for K-12 schooling to be remote. An evidence-based argument is offered that without proper student engagement, learning goals will become jeopardized. Considerations of the issue should include two high school teachers who have participated in online instruction and rethinking their lessons with student engagement in mind. Three themes emerged from an analysis of the data and were explored to address the issue presented. Based on the data, an action was chosen as the most effective option for improving student engagement during distance learning.

Setting the Stage

Many people have been struggling through this COVID-19 pandemic, although we are hopeful that the end is near as more vaccines are being received and schools reopening. Online and distance learning is still happening. I am in a unique situation because I am studying to become a teacher, and also, I am a student living through the pandemic and learning online. When schools first closed over a year ago, I tried to be optimistic about the new reality of remote learning, and I felt that same optimism from my classmates. Most of us felt like this was temporary, and we would all be together again on campus in the fall. However, after the semester ended and summer started, the rumors began that the campus would not be reopening in the fall. Mid-summer, we all received the email confirming that we would not be returning to in-person classes in the fall. I started my classes in the Fall, and it all felt different. There were way too many distractions at home and as each week went on, opening up the computer for my zoom meeting became more daunting. This got me thinking; if I had this much trouble focusing in class, how are students in primary education focusing? I also considered, as a future teacher, how would I encourage students to come to class? A simple answer would be making classes mandatory; do not give students the option not to attend classes. However, another problem arises, how do we get the students engaged and keep them engaged for the remainder of the course? This is the exact problem I will be addressing in my capstone project. As students continue to learn at home, how can we entice them to be actively engaged in course materials with the infinite distractions they face? I believe that teachers need to revise their teaching methods to support their students' learning outcomes better.

Literature Synthesis and Integration

A year ago, the unthinkable happened. COVID-19 shut down the world, and we all had to live through unprecedented times. Schools were closed, and teachers, parents, and students had to learn to navigate remote learning. As the months went on, it became clear that remote or hybrid instruction would continue for much longer than anticipated. Zoom became the primary mode of instruction for many teachers. Zoom is not a new technology and has many features to create an interactive learning environment (Serhan, 2020).

What is the problem?

Of interest, through a study, Knipe and Lee (2002) found that a student's experience in a remote learning environment was less quality than a face-to-face classroom. This was due to the use of a new platform and delivery methods, the lack of participation, and the need for teachers to adjust their teaching practices to adapt to the learning needs of the students beyond the walls of a classroom.

Remote learning has presented many challenges this past year. The needs of students in a virtual learning environment differ from face-to-face learning environments. Therefore, if we wish students to succeed in this new learning environment, teachers need to adjust their learning styles (Zammit & Willard, 2019). Unfortunately, teachers cannot copy and paste their in-person lessons onto this new platform of learning. Lessons will need to be reviewed and adjusted, keeping in mind the differing needs of the online learner and their engagement.

What is student engagement? There is no one answer to this question. But we can break down student engagement into three distinct areas; behavioral, emotional, and cognitive (Harris, Dargusch, Ames, & Bloomfield, 2020). It is essential to keep these three areas in mind when developing a lesson; teachers should also keep those areas in mind regarding transiting to online

instruction. According to Nicolás Pino-James (2015), there are six factors to consider when developing lesson plans to increase student engagement with these three areas in mind: 1. Make it Meaningful, 2. Foster a Sense of Competence, 3. Provide Autonomy Support, 4. Embrace Collaborative Learning, 5. Establish Positive Teacher-Student Relationships, and 6. Promote Mastery Orientation. This paper will explore the problem: Decreases in student engagement since COVID-19 shut down our schools; and study ideas that may promote student engagement.

Why is it an issue?

Distant learning is not a new practice, but online learning is a relatively new experience (Keaton & Gilbert, 2020). Although technology has made these times easier for most students and teachers, remote and online education was primarily developed for adult learners in independent study courses and not with K-12 students in mind (Barbour & Reeves, 2009). Our school systems did not set up our K-12 classes for remote instruction, making this all the more difficult for teachers and students to adjust. Furthermore, the instant feedback available with face-to-face instruction, which many teachers are used to, is not available with online learning, making it difficult for teachers to gauge their students' engagement and understanding (Zammit, 2019). Teachers need to reimagine their teaching methods and develop creative ways to receive feedback from their students to further their engagement and understanding. As part of these new teaching strategies, teachers should consider how they will keep students engaged in the lessons. Without proper engagement, students' learning goals will become jeopardized (Charbonneau-Gowdy, 2018). Using many of Zoom's various features to interact with students is a step in the right direction. However, teachers cannot rely solely on these features. In a study conducted by Serhan (2020), most students felt that Zoom's use had harmed student interaction and engagement. Collaboration needs to be done to help achieve greater student engagement.

Many teachers are tempted to revert to traditional teaching methods, with most schools being

closed for roughly a year. However, teachers need to fight these temptations to support overall

student engagement and factor in learning loss from this past year of the new instruction

(Rouleau, 2020).

What should be done?

There may not be one singular answer for what should be done to increase student

engagement during these times. As previously stated, student engagement can be divided into

three distinct areas: behavioral, emotional, and cognitive (Harris, 2020). This is also known as

the academic communities of engagement framework, or ACE framework. To achieve the

desired learning outcome, student engagement needs to be high. ACE helps to enable students'

ability to independently engage in a lesson by promoting good feelings while completing a task

(emotional), showing the effort of completion of the task (behavioral), and developing

knowledge and skills (cognitive) (Borup, Jensen, Archambault, Short, & Graham, 2020).

Teachers should revisit their lessons and ensure that they encourage all three areas of student

engagement. Rouleau (2020) states:

> Intrinsic motivation is a powerful driver for adults and youth. Often, when seeking to
>
> improve, we isolate the negative data points and impose a top-down solution to solve the
>
> "problem." What could happen if, instead, we identify and build on strengths to address
>
> our challenges? What if we called out successful practices from our brick-and-mortar
>
> experiences, and instead of simply trying to replicate them online, we investigated the
>
> root cause of our success and then created the conditions for that same level of success
>
> online? (p. 5-6)

Some teachers may find that some of their practices from in-person instruction may also be

effective for online learning engagement. So although the learning environment has drastically

changed in the past year, it does not necessarily mean we need to throw out all of our lesson

plans. But instead, we can bring onto these lesson plans and perhaps tweak a couple of old ones

that have lacked engagement before the shutdown.

Also, Terry Heick (2021) discusses nine principles of student engagement for a virtual

classroom; see figure 1 below:
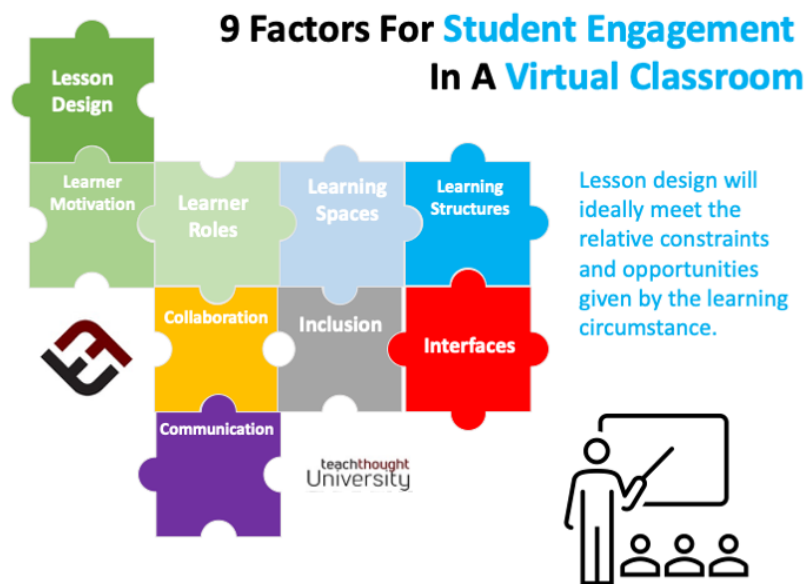

Figure 1. Image showing the 9 Factors of Student Engagement in a Virtual

Classroom (Heick 2021)

Some of the nine principles include starting with a lesson design that requires active learning and

participation. Also, the use of "class jobs" can improve group work and keep students on task.

Virtual classrooms should have a flexible schedule and involve every student daily (Heick,

2021).

Conclusion

In conclusion, since our schools have closed due to safety precautions with COVID-19, student engagement has declined. Unfortunately, with the decline of student engagement comes the loss of learning as well. While it is difficult to say when or if schools will reopen and become "normal," teachers need to adjust their lesson and teaching strategies to promote student engagement. There are various methods to promote engagement, taking into account the three areas of student engagement; behavioral, emotional, and cognitive.

Method

For this Capstone Project, the researcher investigated how teachers engage their students during distance learning and what they thought could improve engagement. Based on an analysis of the data and the relevant research literature, the researcher used what she has learned to formulate an action that responded to the focus issue in a way that inspired, informed, or involved a particular audience.

Context

The study participants are both teachers from Elle High School in Bay City, California[1]. Bay City is the largest city in Northern California, both in population and area. Elle High School is a public school that currently has a population of 1772 students between grades 9-12. Elle has a prominently white student population, and the Asian student population is second-largest, with over a 30% gap. Elle school is ranked high academically but is falling short in regards to equity. The lower-income and underserved minority students are almost half as prepared for college and score lower on tests (greatschools.org, n.d.).

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[1] Pseudonyms have been used for the names of people, places, and organizations.

Like most schools globally, Elle High School had to shut down over a year ago due to the COVID-19 Pandemic. Their students and teachers had to adjust to learning online and the many complications that transitioned.

Participants and Participant Selection

Researcher

I, Sally Ryan, am in a unique situation because I am a student experiencing pandemic and online schooling, but I am also studying to become a teacher. I chose to focus this study on student engagement during virtual schooling. I have been struggling with engagement during my classes this past year. My struggles got me thinking about what teachers are doing to engage their students? High School students may be the last to go back to complete in-person instruction. Going into this study, I need to be aware of my personal biases, such as my struggles with online learning, and that there needs to be a change in every classroom.

Teachers

I interviewed two English teachers from Elle High School. Jose Nak (Mr. N) and Eliza Townsend (Mrs. T). Mr. N and Mrs. T are invited to participate because of their relevant experience and knowledge in teaching virtually for the past year.

Semi-Structured Interview and Survey Questions

1. What have been your experiences with virtual classroom engagement? What do you see as the challenges with virtual classroom engagement, or What are you most concerned about when it comes to virtual classroom engagement?

2. What is currently being done to facilitate virtual classroom engagement - by whom - and what are the strengths and weaknesses of these efforts?

3. What do you think should be done about virtual classroom engagement?

4. What do you think are the challenges to doing something about virtual classroom

engagement?

5. Is there anything else that you would like to say about virtual classroom engagement and/or

the improvement of virtual classroom engagement?

Procedure

Participants were interviewed. Due to the COVID-19 pandemic, we all thought it would

be best that the interviews be conducted over facetime. Per the participants' request, I had sent

them the questions before our interviews. A semi-structured interview was used to allow for

follow-up questions to unclear, interesting, or unexpected responses. All interviews were

scheduled at the convenience of the interviewee and took approximately 30 minutes to complete.

Data Analysis

Interview data were transcribed and analyzed for emergent themes.

Results Section

For this Capstone Project, two high school teachers were interviewed to see what they

think could improve student engagement during distance learning. This is important because, as

a student who is navigating through remote education herself and studying to become a teacher, I

find myself not as engaged in the lesson as I would be if I were in person. This made me think,

how are teachers addressing a lack of engagement among their students? Three themes emerged

based on an analysis of the data and the relevant research literature (see Table 1). Evidence-based

decision-making required evaluating each potential Action Option by the following criteria: time

required, reach, and effectiveness. Time is already a factor working against teachers on this

endeavor; thus, it is essential to consider how time effective the action options are. Reach is an important criterion as it feels the possibility of any students being overlooked. Lastly, effectiveness is a necessary criterion because it analyzes the possibility and extent of success. Based on the evaluation of each Action Option, action will be recommended and justified.

Table 1

Evaluation of Action Options

	Time required	Reach	Effectiveness
Be Flexible	High	High	High
Assignment due at the end of class	Medium	Medium	Medium
Utilizes Zoom's features (Camera, chatbox, microphone, break-out rooms, etc...)	High	Medium	Low

Be Flexible

The first theme that emerged from the interviews was being flexible. This past school year has been a very trying time for teachers and students. Technology has made these times more manageable, but most K-12 school systems are not designed for remote learning (Barbor & Reeves, 2009). Thus students' needs have been changed due to the demand for distance learning; with this in mind, teachers should consider revisiting their lessons to ensure they encourage student engagement on an online platform (Zammit & Willard, 2019). Of interest, from my interviews, I discovered that the interviewees' schools had a program for online textbooks (J. Nak, personal communication, March 18, 2021). When schools closed and remote instruction

began in March 2020, the interviewees' schools insisted that all teachers use this program.

However, this program was designed for independent studies and not with student-teacher

interaction or student engagement in mind (J. Nak, personal communication, March 18, 2021).

Another teacher shared the results of using the program, "I believe the school thought that this

program would make the transition from in-person to online instruction easier; however, this

program was essentially reading a textbook and answering questions. I did not have any

interaction with my students, and I could tell they were not engaged in the course work" (E.

Townsend, personal communication, March 18, 2021).

Both teachers realized that this program was causing a lack of student engagement.

Hence, they respectively chose to revisit their old lessons or create new ones (J. Nak & E.

Townsend, personal communication, 2021). According to Terry Heick (2021), virtual classrooms

should have a flexible schedule that involves every student daily. As previously stated, teachers

and students have to relearn what school was during distance learning. Lessons may have to be

adjusted to accommodate online learning better and promote student engagement. Time required

may be high due to redesigning lessons, but reach effectiveness are both high.

Assignment due at the end of class

During these times of distance learning, teachers may find it difficult to gauge their

student engagement. Many teachers would use instant feedback while face-to-face instruction

was available; however, instant feedback is not available with online learning (Zammit, 2019).

This makes it difficult for a teacher to inquire about the students' engagement and understanding.

To help gauge their students' engagement, one teacher suggested that a student must produce

something digitally. He continued by saying that online learning is very product orientated and

needs to focus on an end goal (J. Nak, personal communication, March 18, 2021). Teachers need

to reimagine their teaching methods and develop creative ways to receive feedback from their

students to further their engagement and understanding (Charbonneau-Gowdy, 2018).

The product or assignment due at the end of the class could be completed as an individual

or as a group. It could be a shared document that they all need to complete, a skit that they

should be ready to perform at the end of class, or a slideshow presentation (E. Townsend,

personal communication, March 18, 2021). Based on the work that is turned in, teachers will see

how practical their lessons are at promoting student engagement.

Utilizing Zoom's features

The third and final theme that emerged from the interviews was utilizing Zoom's

features. Zoom is not a new technology and has many features to create an interactive learning

environment (Serhan, 2020). A favorite feature of Zoom among many teachers is breakout

rooms. Breakout rooms help students focus and promote collaborative learning (J. Nak, personal

communication, March 18, 2021). However, a lack of accountability may become a problem

with breakout rooms because there is not as much teacher oversight (E. Townsend, personal

communication, March 18, 2021). In addition, a teacher may ask that students keep their cameras

on during class so that the teacher can gauge their engagement and understanding through facial

expressions. Still, some problems may arise with students and cameras. "I have heard stories of

students having their cameras on and a parent not realizing and walking into frame of the camera

without clothes on. Or simply a student may not feel comfortable showing their living conditions

on camera. So for my classes, I leave the camera on as optional" (E. Townsend, personal

communication, March 18, 2021). Zoom has excellent features, but sometimes home life does not make for a camera-ready environment.

Using many of Zoom's various features to interact with students is a step in the right direction. However, teachers cannot rely solely on these features. In a study conducted by Serhan (2020), most students felt that Zoom's use had harmed student interaction and engagement. Both teachers agreed that Zoom this past school year would not have been possible, but Zoom school is not the same as in-person instruction.

Conclusion

Recommendation. Of all the three action options given above, I recommend being flexible. Based on the literature and data collected in the interview process, I am confident that this is the best solution to improve student engagement during distance learning. This section will discuss the concessions, limitations, and possible negative outcomes of this action option.

Concessions. While I chose being flexible as the best action option, the other two action options have considerable strengths. This option also includes choosing to include the other two options, which is an essential factor for teachers to consider when preparing an engaging virtual lesson. Studnet engagement can be divided into three areas; behavioral, emotional, and cognitive (Harris, 2020). Having students utilize Zoom's features may help to achieve behavioral and emotional engagement. Students would be able to see and hear their peers, and breakout rooms may allow them to feel connected with a smaller group. Having students turn in a product at the end of class may help achieve cognitive engagement. However, if this is done in a group, it may be difficult to gauge an individual student's understanding.

Limitations. While choosing being flexible as my recommended action option seems to be the best choice, there still are limitations to recognizes. The time required for this action option is high, and many teachers have time constraints. It is intimidating to start from scratch, but this new learning environment calls for an adjustment of lessons with the three areas of student engagement in mind. This does not mean that a teacher should throw out all of their lessons but instead revisit these lessons and see which can translate online, which need some changes, which may need to be thrown out a long time ago.

Potential Negative Outcome. One possible negative outcome to consider for this action option when redesigning or creating new lessons teachers may have to think about what will work for most students. There might be a lesson working for five out of thirty students, and those five students may get upset if things get changed on them. This is where being flexible comes in; if you recognize that most students are not engaged in a lesson, and it needs to be changed, you can change it, and you can also reach out to the students who did like it and explain to them the situation.

Conclusion. Despite the limitations and potential negative outcomes, I still recommend being flexible as the best option to improve student engagement during distance learning. This option has the strongest reach and effectiveness of all the actions. Reaching students should be highly considered regarding student engagement. Although this past year has made reaching students more complex than ever, being flexible offers a solution to show students that teachers adjust accordingly and try to make their lessons as engaging as possible. Overall, this past year has been unprecedented and unpredictable. Nothing is set in stone. If something does not work, do not be afraid to go back to the drawing board.

Action Documentation

This past school year has been challenging for students and teachers alike. Keeping students engaged during distance learning was not an easy task. However, teachers could not address the lack of student engagement. After researching the literature and conducting interviews, I came up with three possible solutions to help improve student engagement during distance learning. The three possible solutions were; be flexible, have students turn in an assignment at the end of class, and utilize Zoom's features (microphone, camera, chat, breakout rooms, etc..). I choose be flexible as the best solution to help improve student engagement during distance learning. This solution allows teachers to change or create lessons that are best suited for online learning and have student engagement in mind. Moving forward with this recommendation, I wrote a letter to the current school principal. The letter explained that after collecting research and data, I found that there was a lack of student engagement during distance learning and offered the recommended solution, be flexible. I hope that the principal will share my findings with their staff. Overall, the letter asserted that this recommendation was only a suggestion to help improve student engagement during distance learning. As of yet, there has been no response from the principal.
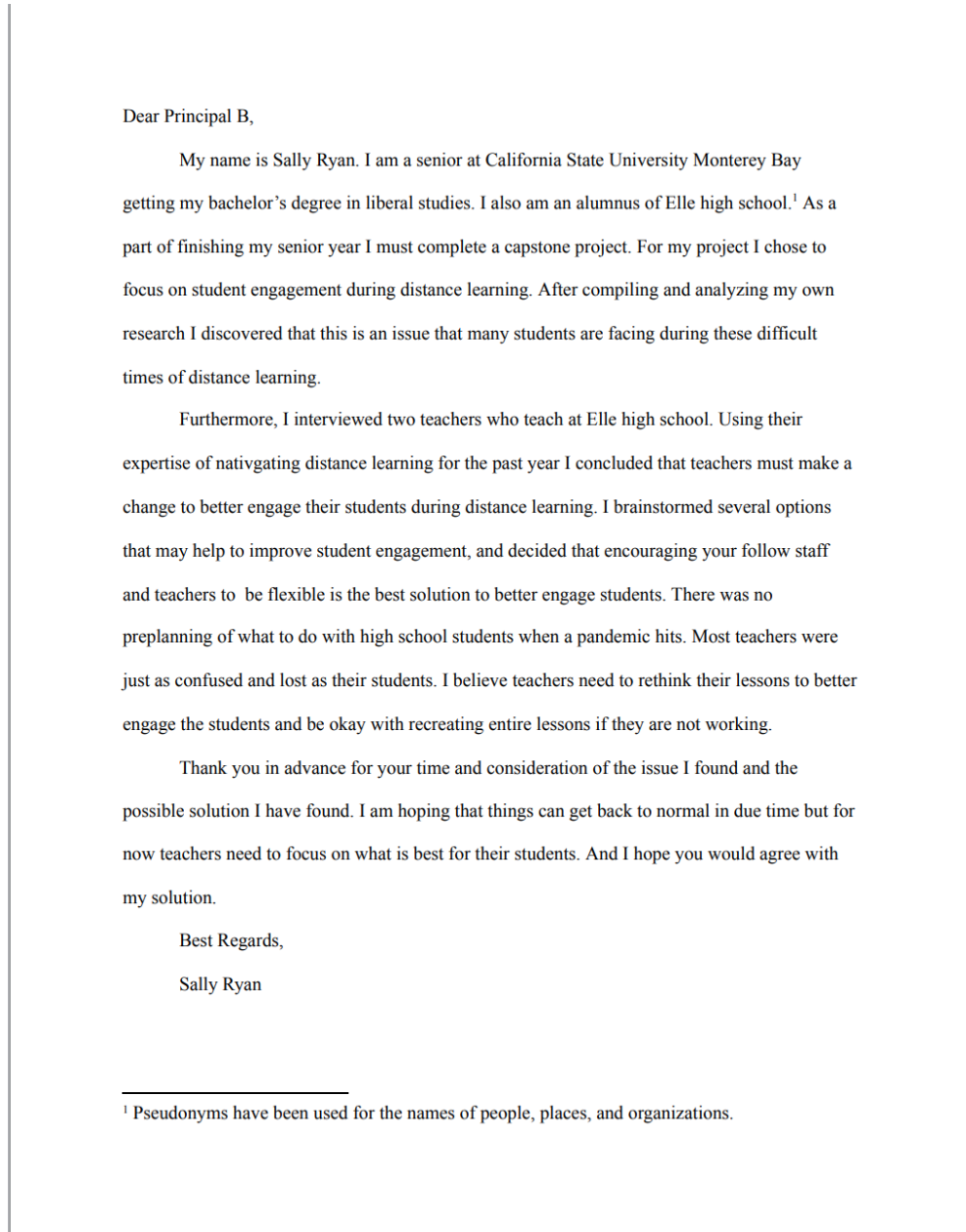
Dear Principal B,

My name is Sally Ryan. I am a senior at California State University Monterey Bay getting my bachelor's degree in liberal studies. I also am an alumnus of Elle high school.[1] As a part of finishing my senior year I must complete a capstone project. For my project I chose to focus on student engagement during distance learning. After compiling and analyzing my own research I discovered that this is an issue that many students are facing during these difficult times of distance learning.

Furthermore, I interviewed two teachers who teach at Elle high school. Using their expertise of nativgating distance learning for the past year I concluded that teachers must make a change to better engage their students during distance learning. I brainstormed several options that may help to improve student engagement, and decided that encouraging your follow staff and teachers to be flexible is the best solution to better engage students. There was no preplanning of what to do with high school students when a pandemic hits. Most teachers were just as confused and lost as their students. I believe teachers need to rethink their lessons to better engage the students and be okay with recreating entire lessons if they are not working.

Thank you in advance for your time and consideration of the issue I found and the possible solution I have found. I am hoping that things can get back to normal in due time but for now teachers need to focus on what is best for their students. And I hope you would agree with my solution.

Best Regards,

Sally Ryan

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[1] Pseudonyms have been used for the names of people, places, and organizations.

Image 1. Screenshot of the letter sent to the principal with my findings and recommendation.

Critical Reflection

Starting my last semester at California State University Monterey Bay (CSUMB) came with mixed emotions. I was excited to be finishing up my undergraduate. I was nervous about the work ahead, especially in LS 400: *Senior Capstone.* And I was sad because I would be

completing school at home on a computer. Going into this course, I thought I had a good idea of what I wanted the focus of my project to be, but I could not find a community partner who had the same passion as me for this subject. I began thinking about other topics I could choose and landed on student engagement during distance learning. This topic stood out to me because I felt that my classes lacked engagement, and I grew curious about what teachers were doing to engage their students in distance learning better. After reaching out to my community partners, I was surprised to learn that they agreed that student engagement was low, and they were brainstorming ideas to improve it. I was also surprised by the number of literature resources were available for a new topic. Overall the experience of my project went well. I am thankful that my community partners were open and honest with me about their experiences during this past year.

Synthesis and Integration

My time at CSUMB has been one of the most rewarding experiences in my life. I came into CSUMB as a transfer student; I felt like an imposter like I did not belong at a University. But over time, I think that I proved to myself that I worked hard to be here and deserve this degree. The required course work, Liberal Studies MLOs, and this action research project have positively impacted and equipped me in my professional development. Starting with MLOs 1: Developing Educator, I am confident in my ability to think, write, and speak critically regarding the subject matter of my project and in the context of a future educator. The project itself allowed me to connect with and learn from professionals in the field of education. In addition, MLOs 5: Subject Matter Generalist, I acknowledge this experience in completing a coherent depth of a study successfully within my action research project. To continue to move forward in the professional career that I desire, I will further familiarize myself with the literature regarding my passions and increase my confidence as a skilled speaker, writer, and thinker. The greatest

takeaway from completing this project is that we should never stop learning.

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