# Phase III Learning Case Study: Project-Based & Problem-Based Learning

# PSY 205 Educational Psychology Learning Plan Template

Teacher Name: Ms. Murphy	Grade & Subject: 7th Grade Classroom   Unit on Operations
	Management (5 <sup>th</sup> -8 <sup>th</sup> grade levels of learners)

Name of School: Missouri River Middle School

Background of School ("culture"):

Missouri River Middle School is a public school in Bismarck, North Dakota. Bismarck has a population of approximately 73,000 and this middle school has a population of approximately 1,000 students. The city population primary white, with 82% of the community being Caucasian, 4% American Indian, 3% Asian, 3% Hispanic, 3% Black, and the final 5% are two or more races.

In the city, a total of 14% of the students qualify for free and reduced meals. The school has a mix of high and low-income families, with most at a middle level socioeconomic status. Missouri River Middle School feeds into Legacy High School. Each class is relatively small, consisting of approximately 17 students to each teacher.

The staff at Missouri River Middle School is primarily comprised of new teachers and teachers with 5-10 years of experience. Because many of the teachers are recent college graduates, the teaching staff tends to be aware of new strategies and techniques and open to the implementation of innovative ideas. The teachers are diverse thinkers who collaborate, and staff conflict is mitigated by the common goal of helping children to learn and thrive both in the educational setting and in life after school.

The school operates on the standard seven period, fifty-minute class length model. Students go to their core classes of their respective grade every day (math, english, social studies, and science) and every other day attend a variation of art, foreign language, band, choir, and other choice electives. The school day starts at 8:15 am and ends at 3:15 pm. Each student has five minutes between each fifty-minute period and a forty-minute lunch period. Each semester students' electives will change; however, students will always attend either P.E., study hall, band, or choir.

Reflecting the low drop-out rate and general response of students enjoying school, parental involvement in Missouri River Middle School is high in academics and moderate regarding extracurriculars and other school activities. The fresh and innovative staff, which makes up the majority of Missouri River Middle School, are constantly searching for ways to get parents involved in the entirety of a students' schooling microsystem.

To further parental involvement in the classroom, several teachers have created Twitter or Facebook classroom pages for working parents to update themselves on the classroom material of their students at their convenience. Teachers have also asked for working parents to be guest speakers regarding career development week for students. To further parental involvement for extracurriculars or other school activities, many of the school's sports teams and music groups have created booster clubs where parental involvement is highly recommended to organize fundraisers

and plan fun activities for the students involved. In addition, a recorded live-stream is also offered for all student extracurriculars for working parents to view outside of the time of the event. In general, teachers at Missouri River Middle School seek to draw out parental involvement in a variety of ways regarding a student's school life to create the most positive attitude toward the school for each student.

PBL Unit Name: Event Planning Operations During COVID-19.

Driving Question: How can we spread Christmas cheer to nursing home residents isolated and alone for the holidays due to COVID-19? Specific Standards:

- Operations Management (6.2a. 1.5): Recognize a social problem and use entrepreneurial principles to organize, create, and manage a non-profit venture to achieve social change.
- Operations Management (6.7b.1.11): Plan human resource needs and determine staffing requirements.
- **Operations Management (9.4a.1.3):** Design and implement a time management schedule as a result of a time management analysis.
- Operations Management: (9.4d.1.7) (Level 4): Evaluate communication for effectiveness.

What Resources Will the Students Need (describe all resources and learning materials necessary for your project (e.g., Internet sites, colored paper, graduated cylinders, etc.):

- Computers/students' notes for research purposes & communication between students throughout project
- Families to volunteer to provide Christmas goodies
- Supplies to create Christmas cards markers, paper, colored pencils, etc.
- Electronic sign-up sheet
  - o Games
  - Activities
- Nursing home connections (email, phone numbers) which students can pick from
- Day of Connection at Nursing Home...
  - Transportation for Students
  - Board Games
  - o Window Markers
  - o PPE Personal Protective Equipment (gloves, masks, hand sanitizer, etc.)
  - o Christmas Carols
  - Christmas Cards
  - o Christmas Goodies
- Presentation Materials
  - o Computers (Prezi, PowerPoint, etc.) or story board materials

What Resources Will the Students Need (describe all the resources/materials needed for your students to learn):

• Student 1 (Grace | 8<sup>th</sup> grade learning level): Grace is an extremely friendly, outgoing, and popular student at her school. Other than her schooling, Grace keeps herself busy with volleyball, basketball, traveling basketball, and peer to peer. Grace is academically proficient in most of her core classes, but was put into an extra reading course as she tends to struggle

with reading. Grace loves working in groups and talking through problems. This reflects the fact she has extremely strong verbal, bodily-kinesthetic, and interpersonal skills. Grace will find success with this PBL because she will be able to express herself verbally and have the opportunity to build relationships with those in the nursing home. This PBL will also challenge Grace because she will be put in a position to lead and encourage other students with her strong interpersonal skills.

- Student 2 (Sophia | 5<sup>th</sup> grade learning level): Sophia personality is extremely excitable and would be described as possessing an "easy child" temperament. She is a great student, and before being homeschooled, she expressed her feelings that work was too easy for her and she was always done before the rest of her classmates. Sophia's hobbies include swimming, drawing, soccer, and hanging out with her best friend. However, besides her best friend, Sophia struggled making friends in the classroom. This PBL will challenge Sophia to work in groups with her classmates and more than likely will be her first experience with understanding operations. Also, this PBL is not completely group work, and will give Sophia the option to express herself through her art.
- Student 3 (Brady | 8th grade learning level): Brady is an extremely motivated student when engaged by the content in his classroom. He is extremely athletic, being a part of the football, basketball, and baseball team. He also possesses strong logical-mathematical skills, but struggles with writing papers. Brady is described by his teachers as being a "good kid," but tends to be hard on himself when not successful. This PBL will challenge Brady's in developing new team skills, but will also give Brady the opportunity to be one leader for his class and offer the group his strength of his interpersonal skills. Also, because of the real-life results created by this PBL, Brady should be engaged by the project.
- Student 4 (Ethan | 6<sup>th</sup> grade learning level): Ethan is a creative student who at time needs extra motivation for readings and his assignments. This motivation comes from not only being engaged, but being challenged by the content. Ethan has strengths in both his logical and kinesthetic skills, so I think this PBL will be a great mixture to showcase Ethan's mixture of creativity and logic skill strengths. In times when Ethan needs help, I think he could pair well with Sophia because both students possess strong interpersonal skills with similar learning levels, and may feel comfortable discussing ideas together before asking questions.
- Student 5 (Josh | 6th/7th grade learning level): Josh is an extremely adaptable student, but struggles to focus in the classroom and can get emotional if something triggers him. Josh was diagnosed with ADHD, but this does not seem to affect his self-esteem in the classroom as he loves to share. Because of his history of being home schooled, Josh does not have one group of friends but rather quite a few different friends from church, choir, and his co-op classes. Josh is an above average student in both math and reading, as he possesses high mathematical intelligence and is currently reading 12th grade books. However, Josh possess low verbal and interpersonal intelligence. This PBL will challenge Josh's interpersonal skills by working in groups. If needed, I can contact a school-aid to help Josh share his ideas and keep his emotions and time-management in check while working. This PBL will help Josh

express his love for reading by completing research and express his logical intelligence in planning the operations for this PBL.

Students Will Do (describe what will be done during the unit in the order they will be done):

1. Orient Student to the Problem: I will introduce the PBL by explaining how Covid-19 has affected those in nursing home this past year. I would also ask students if they have any family members in a nursing home. Then, I will introduce the question, "How could we spread Christmas cheer to nursing home residents isolated or alone for the holidays due to COVID-19?"

Although we will not start gathering information yet, I would like to introduce the question before the operations management lesson so students start thinking about the connection of concepts. Then, I would introduce a small operations management lesson regarding recognizing social problems, planning events, designing effective schedules, and how important communication is within a team. We will then have a short in-class discussion to come up with a few examples for each of the topics before I dismiss students for the day.

2. Organize Student for Study: The following class period I will once again introduce the PBL driving question of "How could we spread Christmas cheer to nursing home residents isolated or alone for the holidays due to COVID-19?" This time, I will give students time to write down their immediate thoughts now possessing a deeper understanding of the operations management concepts, and then share those thoughts with a group. Students will be encouraged to be thoughtful, genuine, and realistic as this is a service project and event we will be recreating in real-life. Once

Describe How This Will be Developmentally Appropriate for:

### Brain Development:

This group of students are in their late childhood to early adolescence stages. Because of this age range, students should have increased attention, reasoning, and cognitive control compared to when they were under ten years old. This may differ for Josh because he was diagnosed with ADHD as well as for Sophia because she is younger than the other students. In early adolescence, the corpus callosum should be thickening creating a greater ability to process information. Students' prefrontal cortex, the decision making and emotional portion of the brain, is still developing throughout adolescence which makes students trying out risky behaviors possible. Grace reflected that she believed if her friends were sneaking out, she would too. Ethan also spoke to trying out risky behaviors. However, Sophia explained that she would more than likely not participate in risky behaviors which reflects the stage of Kohlberg's Theory she is within.

This PBL will offer brain development for this specific group of students because of the opportunity the individual and group work should challenge students to stay on task and reason through problems. In addition, this PBL will, hopefully, channel student's emotions into a constructive and valuable event.

## Cognitive Developmental Stage:

This PBL encourages students to think in more abstract and logical ways, reflecting the formal operational stage of development. This PBL presents a problem which requires students to reflect on the information, organize and analyze the information, and then produce logical results.

students have had time to individually ponder and share the ideas with a group, I would have students come up to the board and write down the ideas of their group (I will also have a number of ideas scaffolded including: playing games outside residents' windows, playing games over zoom, bringing Christmas goodies to residents, writing Christmas cards to residents, Christmas caroling at the nursing home, etc.). Once this list is created, I will re-create the list on the side of the board which we will leave up for the remainder of the PBL. Before dismissing the students, I would hand out an exit slip which asks students which role they would most likely like to be a part of from the discussion in this service project.

3. Assist with Independent and Group *Investigations:* For the third day of this PBL, I would pair students in their groups they choose in their exit slips for the service project. Then, I would introduce the nursing home that is letting us complete this project, and a list of the number of residents. Although there may be a few ideas we all partake in, such as the Christmas caroling, there will also be projects that students create either individually or with their small group, such as creating Christmas cards or baking Christmas goodies. Students will then sign-up for their intended role and start planning for their roles. I will evaluate if students need more than one day to complete this process or only one class period.

Once students feel they have completed this planning portion of the process, each group will give a mini-presentation of what they will be doing for the project and how they will implement their plans on the day of.

There will be a rubric to help scaffold the

Each student will be challenged in a different way regarding their specific ZPD. Brady and Grace will more than likely be at higher learning levels that Josh, Sophia, and Ethan. So, these two students could be in leadership roles or given extra duties to reach their ZPD.

#### Emotional Developmental Stage:

These particular students age range from 11-14 years old, meaning the majority are in Erikson's identity versus identity confusion stage. This PBL will give students an opportunity to develop within this stage by offering students selfreflection, discussions with the class, and preference of a certain a portion of the project they would like to partake in. As the educator, I will encourage students to pursue something that they find enjoyable, and not what their friend finds enjoyable. I think this will be the most difficult for Josh because of his lack of interpersonal skills, but Brady and Grace will help include Josh and, as the educator, I will encourage and offer Josh guidance of how to share his ideas with his classmates.

## **Identity Development:**

Ranging from the ages of 11-14 years old, none of these students have not have adequate opportunities to explore different approaches or ideologies on their own and are experiencing either the identity diffusion (Sophia, Ethan, and Josh) or the beginning stages of the identity foreclosure stage (Brady and Grace). Many of the students spoke confidently about describing certain characteristics about themselves, but only Grace spoke about a future occupation and both Grace and Brady spoke about being worried about what others thought about themselves. Sophia spoke about not being sure what her future holds, but that she thinks she'll be successful. Hopefully, students will explore how they interact with their teammates throughout this PBL and start to lean towards some lifestyle or relationship identities.

implementation process. Once each group of students have presented their portion of the project, we will then schedule a date either within class time, or on weekend (if allowed) for students to implement the project. I will hand out an exit-slip at the end of this class period asking if students have any questions about the implementation of the project.

- 4. Develop and Present Artifacts and Exhibits: To present their artifacts, students will take part of this "day of service" type of project where they attend the nursing home. While at the nursing home, students will complete all their planned activities with a few examples being handing out Christmas goodies, playing games with residents, etc. The students will take part in this activity for 2-3 hours before returning to school or if it is a weekend, being dismissed.
- 5. Analyze and Evaluate work: Once the project has been completed, students will prepare a short group presentation about what they learned from the project, fun stories from the day, what they would do differently next time, challenges that occurred, problem-solving techniques, communication strategies, etc. Each student needs to play an active role in the presentation. Presentations can be completed by PowerPoint, Prezi, a physical story board, etc.

Videos of the presentations will be recorded for the classroom Facebook page for parents, guardians, and other student companions to watch.

#### *Moral Development:*

For the most part, this group of students is in the second level of Kohlberg's Moral Development, conventional development. During this stage, our student will value trust, caring, and loyalty to others as a basis of moral judgements. This PBL reflects the conventional level of moral reasoning because of the care they will be sharing to those in the in the nursing home during such a delicate time of the year. Students will also have to develop trust and loyalty to their group members, because if certain members of the group do not follow through on their part of project, students will miss out on opportunity.