**Statement of Purpose**

Port Clinton City Schools decided that after many years of not passing the state achievement tests in 6th, 7th and 8th grade math that something had to change. Students were not developing the necessary skills needed to achieve proficient levels. After revisiting different types of curriculum, the district adopted a series called Connected Mathematics 2. The students would now be exposed to a different teaching method while learning the content and skills needed to pass the achievement tests.

Students were unable to successfully problem-solve in order to find out the skills needed to answer questions. Using the Connected Mathematics 2 series allows them to do just that. The students will now discover the skills needed to answer questions while posing real-life situations. This math series allows the students to become problem-solvers through real-life applications. Students need to develop the skills to problem-solve in order to be successful outside of school. The unit I have chosen will give students the opportunity to discover the skills needed to successfully solve linear relationships.

In order for the students to thoroughly understand the meaning of linear relationships, they will use real-life problems that help them understand the reason as to why linear relationships exist and how they are used in everyday life. This unit will allow students the ability to critically think both individually and with peers and how to problem solve. Students will do activities such as measuring their walking rates to determine if they have a constant rate, using walk-a-thon pledge plans to determine if one plan will make more money than another or how far they may have to walk to earn a specific amount of money. This unit is aligned with many of the Ohio Academic Content Standards under 8th grade mathematics.

Throughout the linear relationships unit, the students will discover how walking rates for a specific distance can be determined as constant or not. By having the students measure their own walking rates, they can see how this application is more relevant than just being given data. Students will determine the independent and dependant variables of their own experiment and use their information to determine further variables. The various tools that demonstrate linear relationships will be tables, graphs and equations. Showing students a variety of methods will allow them to choose the method that works best for them. When giving the students choices, they are making a decision that will best suite them to be successful. Students will create tables based on their walking rates and then use their table to create a graph to show a visual example of the relationships. This will help students who have a hard time with tables and finding patterns to be able to see the whole picture. The final tool of an equation will be discovered using various vocabulary such as starting point or rate of change. Once students understand the meaning of the vocabulary, using a table and graph, we will move onto solving equations. Solving equations is an essential piece to this unit because students will see equations in their daily lives. Although they may not use walking rates but ideas such as “how many apples can I buy if I only have $2?” or “If cedar point charges $42 admission per person plus $10 for parking, how many friends can I take for $350?” Allowing the students to solve the problems in their own method will allow them to use the problem-solving skills they will need in the outside world.

The implementation of this unit is an essential piece of preparing the students for the slow release into the outside world. The students not only need to have basic skills but need to understand and develop problem solving skills. By the end of this unit, students will learn a variety of skills and concepts that will help them understand linear relationships. The students will also have developed a “tool box” that will allow them to problem solve any situation they come across in real-life. For students to be successful in the outside world, it is our job to provide the students with the appropriate skills, understand that there is always something new to learn and think critically about how to solve any problem.