**CHAPTER V**

**CONCLUSIONS AND SUGGESTION**

1. **Conclusions**

Based on the results of data analysis to answer the research question, the conclusion about the description of the profile of cognitive conflict students with intervention of the understanding concept in plane geometry as follows:

1. Cognitive conflict in understanding concept of plane through their properties

* Conflict between understanding concept of square and rectangle

Subjects have experienced cognitive conflict after the given intervention in the form new ideas. According to their understanding that are not all the properties owned by square as well a rectangle. But they experienced conflicts when given an example of an image where the sample comply the properties of a rectangle but also comply properties of the square. Signs of their mental imbalance in cognitive conflict, they experience confusion, doubt, start inconsistent with their answers, and experienced contradiction. This is indicated by the facial expression suddenly changed as the forehead frown and scratching her head.

* Conflict between understanding concept of rhombus and square

Subjects experience cognitive conflict because, according to their understanding that the rhombus there is that does not have a 90 degree angle so that there is few properties owned by the rhombus is not owned by the square. But they experienced conflicts when given the square sample was added diagonal. And signs of mental imbalance in cognitive conflict, here they are confused determine did the image is a rhombus because it has a diagonal length of the side the same but all that can be said the square. Here as well they appear to begin inconsistent and they also experienced contradiction.

1. Cognitive conflict in understanding concept about explains how to find the area of a plane

* Conflict between understanding concept about how to find the area of parallelogram and the area of rectangle

Subjects have experienced cognitive conflict, because according to their understanding that the parallelogram shape different from the rectangular then the formula is different area as well. But they experience cognitive conflict when given examples where the length of the rectangle is equal to the base parallelogram and rectangular width equal to the height of parallelogram. And signs of mental imbalance in cognitive conflict, they looked confused and doubt when given the examples and as well when asked based on formula did a rectangular including parallelogram.

* Conflict between understanding concept about how to find the area of triangle that has height line inside and the area of triangle that has height line outside

Subjects also experience cognitive conflict because, according to their understanding that to find the area of a triangle ABC given height line AD which is inside the triangle. But they experience cognitive conflict when height line located outside. Signs of their mental imbalance in cognitive conflict, they feel confused and feel doubt to determine the base which is used in calculating the area of a triangle ABC whose height is outside. And they as well confused did area of a triangle if height in inside the triangle is equal to if the height outside the triangle ABC.

1. Cognitive conflict in understanding concept about calculate the area of a plane

* Conflict in understanding concept about calculate the area of the shaded region

Subjects experience cognitive conflict because, according to their understanding in this question to calculate the area of the shaded region that combines all the shaded areas thus forming a half of a square, it could be a way of breaking of last part in the wide count each part. But they experience cognitive conflict when that plane is converted into a new form, but remained actually the same form, it's just been modified. And signs of their mental imbalance in cognitive conflict, when given the same shading with before pictures they seem confused as to why the area in shading same but have a different shape.

1. Cognitive conflict in understanding concept about relationship between the area and the around of a plane

* Conflict in understanding concept about relationship between the area and the around of rectangle

Subjects experience cognitive conflict because, according to their understanding although the same area if have different sizes, around will be different. But they experience cognitive conflict when determining around largest if the area square with width 100cm2. They just think that the plane side was limited only integers. So they looked doubt determine the greatest around the approximately infinite. And signs of their mental imbalance in cognitive conflict, they looked confused and doubt in the determination of its greatest around because length of side a structure is not only limited to integers.

1. **Suggestions**

Based on the conclusions of this research, recommends the following points.

1. Suggested improvements geometry learning, especially in the plane

Results from the research showed students as subjects of research experienced cognitive conflict in understanding the concept of plane through its properties. This cognitive conflict happen because understanding the students in understanding the concept of plane through their properties not mutually integrate well with their understanding. This is very important because the most basic thing to understand the concept of plane. When the student is able to understand the concept of plane through their properties so they are able to differentiate between plane with each other. And also can understand the relationship between plane with each other with a formula approach or properties owned by each plane.

1. Material of the lesson about plane should be using differentiation for see the relationship between plane and the other plane. In fact, if the terms of the properties of each plane have correlation between plane one another especially rectangular. Therefore, it is suggested in the learning that integrate concepts between one plane and with each other.
2. Suggestion for Further Research
3. Suggested the need for research that examines the cognitive conflict with the intervention as learning strategy to strengthen students’ knowledge of plane geometry.
4. Suggested the need for research that examines the development of the learning model based on strategic conflicting the students’ understanding with intervention about plane geometry.