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Analysis of Senior Secondary II Students Performance/Approaches Exhibited in Solving Circle Geometry

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Abstract : The paper will examine the approaches and solutions that will be offered by Senior Secondary School II Students (Demonstration Secondary School, Azare Bauchi State Northern Nigeria – Hausa/ Fulani predominant area) toward solving exercises related to the circle theorem. The angle that an arc of a circle subtends at the center is twice that which it subtends at any point on the remaining part of the circumference. The Students will be divided in to 2 groups by given them numbers 1, 2; 1, 2; 1, 2, then all 1s formed group I and all 2s formed group II. Group I will be considered as control group in which the traditional method will be applied during instructions. Thus, the researcher will revise the concept of circle, state the theorem, prove the theorem and then solve examples. Group II, experimental group in which the concept of circle will be revised to the students and then the students will be asked to draw different circles, mark arcs, draw angle at the center, angle at the circumference then measure the angles constructed. The students will be asked to explain what they can infer/deduce from the angles measured and lastly, examples will be solved. During the next contact day, both groups will be subjected to solving exercises in the classroom related to the theorem. The angle that an arc of a circle subtends at the center is twice that which it subtends at any point on the remaining part of circumference. The solution to the exercises will be marked, the scores compared/analysed using relevant statistical tool. It is expected that group II will perform better because of the method/ technique followed during instructions is more learner-centered. By exploiting the talents of the individual learners through listening to the views and asking them how they arrived at a solution will really improve learning and understanding.

Keywords : circle theorem, control group, experimental group, traditional method
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