Extended Summary

The Effect of Dynamic Geometry Software on the Vocational High School Students’ Success for Teaching Bisector and the Median Concepts

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Summary

One of the important areas of mathematics, the geometry is pretty big in education. Although it provides many other benefits by using geometry in daily life, from elementary school, students do not like geometry, they are afraid of it, and fail in this course. in the 3rd International Mathematics and Science Study (TIMSS-1999) which is participated by thirty-eight countries, Turkey has taken place on 34th in geometry. One of the most important reasons of this is, teachers’ directing students to memorizing in the process of geometric knowledge and skills. Instead of memorizing the formulas and definitions in geometry teaching, students should focus on problem situations for a better understanding of geometric concepts. Today, for teaching geometry, a wide variety of dynamic geometry software such as Cabri, Geometer’s Sketchpad and Geogebra has been developed. Geometer's Sketchpad, one of these software, allows teachers and students to build geometric shapes and research. First, the shapes are created then the relationship between shapes are described by guiding and moving them. Because of these properties, geometer's Sketchpad, stands out as a suitable software that can be used in teaching the triangles subject.

The software allows the student to recognize their performance and the missing parts through mutual interaction and they can also take control of their own learning by getting feedback. Besides, in order to make them more interested in the course, in the teaching and learning process, by using the software which are provided to them they can design mathematical studies and can perform their own learning. At this study too, the information is not directly delivered to the students in the experimental group, the students have configure the information themselves. Geometer's Sketchpad software attracted the attention.
of the students, the students have committed to the lesson in a more enjoyable and fun way. Students are given immediate feedback and correction and by this way inaccurate or incomplete learning is prevented. Considering that the students in the experimental group received training in vocational school in computer science, they could easily learned the software and during the application students were able to fulfil anything they are asked without having difficulty. At student centred approaches, students as a result of their activities and efforts, began his mathematical work with a problem situation, will end up with a mathematical situation he related to and reached. In this process, the timely and effective use of information and communication technology is important, and this is one of the components that will ensure a successful implementation and completion of this program. As understood from the expression in the new secondary school mathematics lessons curriculum, (9-12. Classes) the use of information and communication technologies in the field of mathematics courses is quite a great importance. These statements proves how important the findings which are obtained as a result of our study. In light of these results, it helps to be reminded of teachers with in-service training. In light of these results, it can be useful to inform teachers by giving them in-service training.